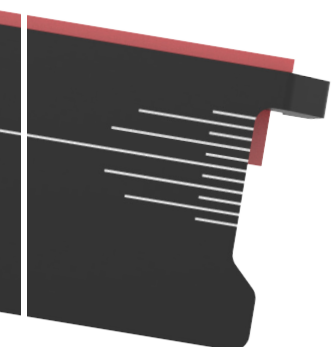


SPARX 

PS100 **OPERATING MANUAL**





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SAFETY

SAFETY PRECAUTIONS

1. Before operating the Sparx® Skate Sharpener, you should familiarize yourself with the product and read and understand all applicable instructions and warnings in this manual.
2. Use personal protective equipment. Always wear eye protection and a dust mask while operating the sharpener.
3. For emergencies: press the  **Cancel Button** two times. This will stop the **Grinding Ring** in its place. Do not stop the **Grinding Ring** unless it is an emergency, as this may damage the skate blade.
4. The Sparx PS100 is intended for use only by trained personnel who are familiar with skate sharpening. We do not recommend that children under 13 years of age be permitted to use the Sparx® Skate Sharpener.
5. The Sparx® Skate Sharpener is not intended for use by persons (including children 13 years and over) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the Skate Sharpener by a qualified adult.
6. Children should be supervised to ensure that they do not play with the Sparx® Skate Sharpener.
7. The Sparx® Skate Sharpener may only be used for sharpening skates.
8. Only Sparx® **Grinding Rings** may be used with this machine.
9. Do not operate the **Sparx PS100** without an external ventilation source connected.
10. Set up the product securely on a stable surface and in a protected location. It must be placed where no one can step on or trip over the **Power Cord** and where the **Power Cord** cannot be damaged.
11. Always use the Sparx® Skate Sharpener in a dry, well-lit and non-condensing environment. To avoid the risk of electric shock, do not use the Sparx® Skate Sharpener in wet or damp conditions.
12. To avoid injury, always use caution when operating the Sparx® Skate Sharpener or when changing the **Grinding Ring**.
13. Do not attempt to touch the **Grinding Ring**, **Carriage**, or **Skate Clamp** while the **Grinding Ring** is moving. Wait for the **Carriage** and **Grinding Ring** to come to a complete stop before attempting any adjustments or **Grinding Ring** replacement.
14. Make sure that the **Thumb Nut** is tightened down onto the **Grinding Ring** before starting any grinding operation
15. Do not leave the Sparx® Skate Sharpener running unattended.
16. Never disconnect the **Power Cord** by pulling the wire to disconnect it from the socket.
17. Store the Sparx® Skate Sharpener in a dry place, out of the reach of children.
18. Maintain the sharpener according to the Maintenance section of this manual. Emptying the **Dust Tray** at specified intervals is a necessary step for performance and safety.
19. If at any time the product does not operate normally, see the Troubleshooting section of this manual.
20. There are no user-serviceable parts on the sharpener. The sharpener should only be repaired by a professional Sparx® Hockey technician, using only original spare parts. Unauthorized repairs could lead to hazardous conditions for the user and/or void the warranty.
21. For any further questions about the sharpener, please contact Sparx® Hockey Support at 1-855-SPARXHQ (1-855-772-7947) or by email at help@sparxhockey.com.



Warning: Please see the manual for operating instructions.



Caution: Pinch point hazard. Keep hands, hair and other body parts clear of the **Skate Clamp** area.

FCC NOTICE (FOR U.S. CUSTOMERS)

This device complies with Part 15 of the FCC Rules:

Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation

Changes and Modifications not expressly approved by Velasa Sports, Inc. can void your authority to operate this equipment under Federal Communications Commissions rules.

INDUSTRY CANADA COMPLIANCE

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

ENVIRONMENTAL PROTECTION

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.




CONFORMITY WITH DIRECTIVES

This product is CE marked to denote conformity with: Low Voltage Directive 2014/35/EC, EMC Directive 2014/30/EU, RoHS Directive 2015/863, Radio Equipment Directive 2014/53/EU, WEEE Directive 2012/19/EU

1

SÉCURITÉ

CONSIGNES DE SÉCURITÉ

1. Avant d'utiliser l'affûteuse de patins Sparx^{MC}, vous devez vous familiariser avec le produit et lire et comprendre toutes les instructions et mises en garde dans ce manuel.
2. Portez un équipement de protection individuelle. Portez toujours des lunettes de sécurité et un masque anti-poussières lorsque vous utilisez l'affûteuse de patins.
3. En cas d'urgence : appuyez deux fois de suite sur le bouton  Annuler (Cancel). Ceci immobilise immédiatement la meule d'affûtage. N'arrêtez la meule d'affûtage qu'en cas d'urgence, car cela pourrait endommager la lame du patin.
4. L'affûteuse de patins Sparx PS100 doit être uniquement utilisée par du personnel qualifié, formé à l'affûtage de patins. Nous déconseillons d'autoriser les enfants de moins de 13 ans à utiliser l'affûteuse de patins Sparx^{MC}.
5. L'affûteuse de patins Sparx^{MC} ne doit pas être utilisée par des personnes (y compris des enfants de 13 ans et plus) ayant des capacités physiques, sensorielles ou mentales réduites, ou un manque d'expérience et de connaissances, à moins qu'elles soient surveillées ou qu'elles aient reçu une bonne formation sur l'utilisation de l'affûteuse par un adulte compétent.
6. Les enfants doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'affûteuse de patins Sparx^{MC}.
7. L'affûteuse de patins Sparx^{MC} doit être utilisée exclusivement pour l'affûtage de patins.
8. La machine doit être utilisée exclusivement avec des meules d'affûtage Sparx^{MC}.
9. N'utilisez pas l'affûteuse Sparx PS100 sans y avoir branché un dispositif de ventilation externe.
10. Pour assurer la sécurité de tout le monde, installez la machine sur une surface stable et dans un endroit protégé. Elle doit être placée dans un endroit où il n'y a aucun risque que quelqu'un puisse marcher ou trébucher sur le cordon d'alimentation ou le cordon d'alimentation puisse être endommagé.
11. Utilisez l'affûteuse de patins Sparx^{MC} toujours dans un environnement sec, bien éclairé, et sans condensation. Pour éviter tout risque de décharge électrique, n'utilisez jamais l'affûteuse de patins Sparx^{MC} dans des conditions humides ou mouillées.
12. Pour éviter les blessures, soyez toujours prudent lors de l'utilisation de l'affûteuse de patins Sparx^{MC}, ou lors du

remplacement de la meule d'affûtage.

13. N'essayez pas de toucher la meule d'affûtage, le guide-meule mobile ou la pince de serrage pendant la rotation et le mouvement de la meule. Attendez l'arrêt complet du guide-meule et de la meule d'affûtage avant de tenter un réglage ou le remplacement de la meule.
14. Assurez-vous que l'écrou à ailettes est serré sur la meule d'affûtage avant de commencer l'affûtage
15. Ne laissez jamais l'affûteuse de patins Sparx^{MC} sans surveillance pendant qu'elle est en marche.
16. Ne débranchez jamais le cordon d'alimentation en tirant sur le cordon.
17. Rangez l'affûteuse de patins Sparx^{MC} dans un endroit sec, hors de la portée des enfants.
18. Réalisez l'entretien de l'affûteuse en suivant les instructions de la section « Entretien » de ce manuel. Il est nécessaire de vider le bac à poussière régulièrement pour assurer la performance et la sécurité de l'appareil.
19. Si, à tout moment, la machine cesse de fonctionner normalement, consultez la section Diagnostic des pannes de ce manuel.
20. L'affûteuse ne comporte aucune pièce réparable par l'utilisateur. Elle ne doit être réparée que par un technicien professionnel Sparx^{MC} Hockey, exclusivement avec des pièces de rechange d'origine. Les réparations non autorisées pourraient créer des conditions dangereuses pour l'utilisateur ou annuler la garantie.
21. Pour toute question au sujet de l'affûteuse, veuillez communiquer avec le service technique de Sparx^{MC} Hockey au (855-772-7947) ou par courriel à help@sparxhockey.com.



Mise en garde : Veuillez consulter les instructions dans le manuel.



Attention : Danger de pincement. Gardez les mains, les cheveux et d'autres parties du corps à l'écart de la zone de la pince de serrage.

CONFORMITÉ AUX NORMES D'INDUSTRIE CANADA

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

INTRODUCTION

TECHNICAL SPECIFICATIONS

SKATE COMPATIBILITY

Hockey Skates

Goalie Skates

Figure Skates*

**Requires an additional adapter, which is sold separately.*

DIMENSIONS AND WEIGHT

Width: 26.8 Inches / 680 mm

Height: 7.6 Inches / 194 mm

Depth: 15.5 Inches / 390 mm

Weight: 38.5 Pounds / 17.5 kg

ELECTRICAL

Line Voltage: 100-240 Volts AC (50-60 Hz single phase)

Maximum Power Consumption: 200 W

GETTING TO KNOW YOUR SPARX SHARPENER



PART	DESCRIPTION
A	Skate Clamp
B	Keypad
C	Clamp Lever
D	Dust Tray
E	Glass Door
F	Travel Screw Slot
G	Protective Slot Covers

PART	DESCRIPTION
G	Lever Dock
H	Exhaust Port
J	Power Input Port

PART	DESCRIPTION
K	Carriage
L	Alignment Adjustment Knob
M	Height Adjustment Knob
N	Grinding Ring Shaft
O	Thumb Nut

WHAT'S IN THE BOX?

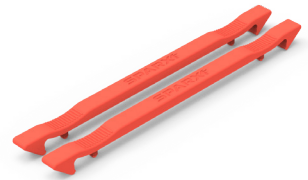
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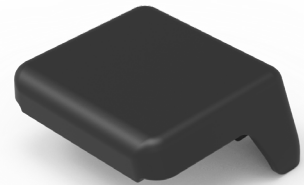
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6

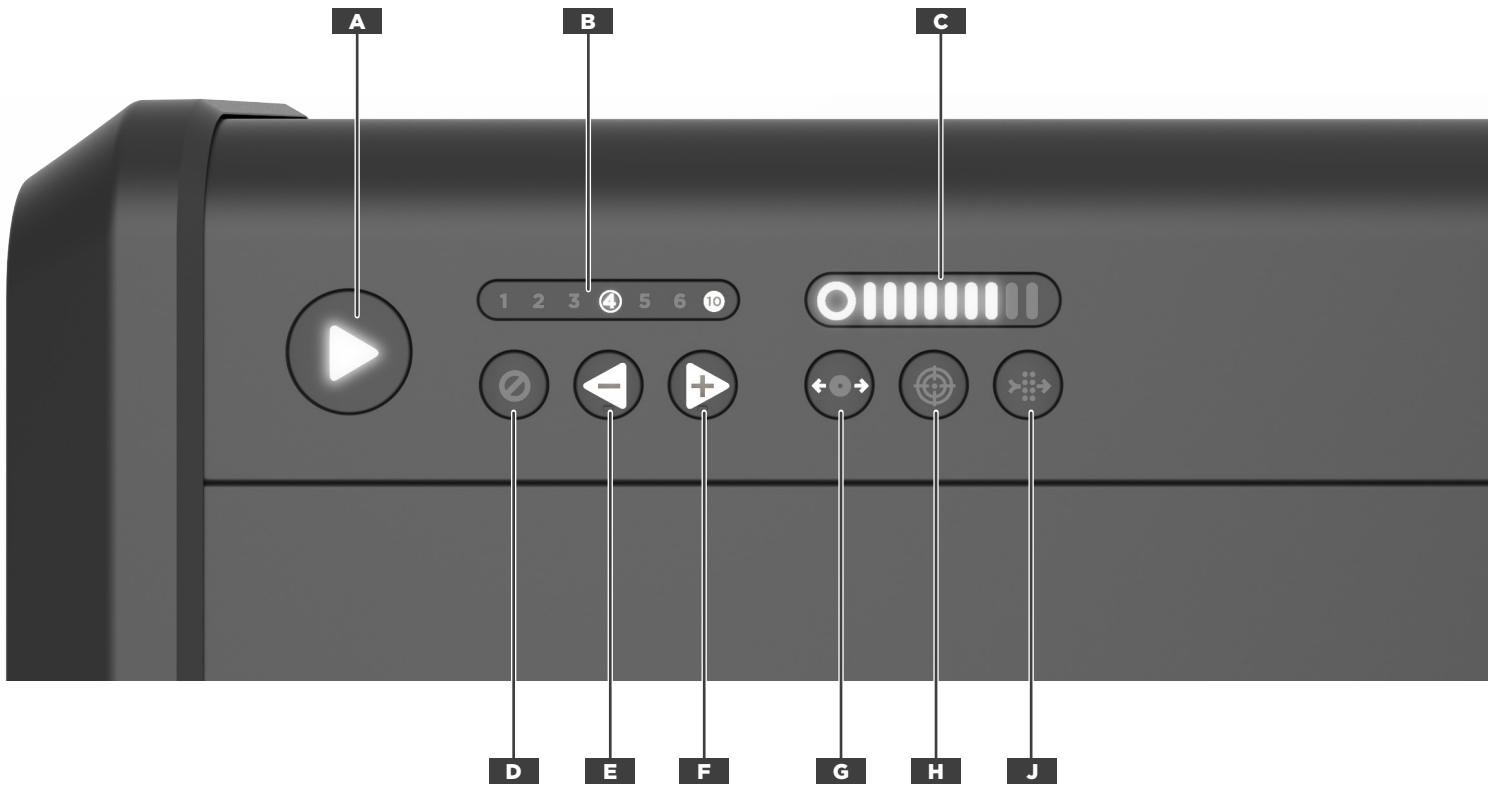


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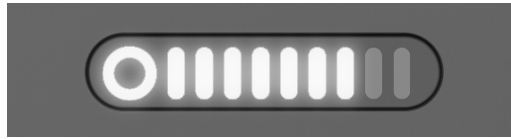
PART	DESCRIPTION
1	Travel Guard
2	Travel Screw
3	Goalie Risers (2)
4	Optical Alignment Tool
5	Alignment Ring
6	Clamp Lever
7	Power Cord

GETTING TO KNOW THE KEYPAD










PART	BUTTON	DESCRIPTION
A	Play	Initiates the sharpening.
B	Cycle Counter	<ul style="list-style-type: none"> Shows the current number of cycles selected. Shows error codes.
C	Grinding Ring Life Indicator	Indicates Grinding Ring life status. See Grinding Ring Life Indicator Behavior table on page 9.
D	Cancel / Error	<ul style="list-style-type: none"> Push 1 time to stop the Carriage at the conclusion of the current pass. Push 2 times for emergency stop, motor stops immediately. When illuminated red, the sharpener is in an error state, see Troubleshooting section of manual.
E	Minus Cycles / Move Left	<ul style="list-style-type: none"> Subtracts cycles from the Cycle Counter. If in Move Mode, moves Carriage to the left.
F	Add Cycles / Move Right	<ul style="list-style-type: none"> Adds cycles from the Cycle Counter. If in Move Mode, moves Carriage to the right.
G	Move	Initiates Move Mode .
H	Alignment	Initiates Alignment Mode .
J	Filter	Indicates External Vacuum power needed.

GRINDING RING LIFE INDICATOR BEHAVIOR



In normal operation, each part of the **Grinding Ring Life Indicator** corresponds to 10% of the **Grinding Ring's** life. These parts are the one circle and the nine bars to the right (10 parts total or 100%). The circle represents the final 10% of **Grinding Ring** life and each bar to the right is an additional 10%. When a part is illuminated, that corresponding 10% life is present on the **Grinding Ring**. When the part is no longer illuminated that amount of the wheel life has been consumed.

The circle of the **Grinding Ring Life Indicator** can also behave in other ways to indicate different operating conditions to the user. Refer to the table below for more information.

ICON	ACTION	DESCRIPTION
	Circle is white and steady.	The Grinding Ring has more than 10% of life remaining.
	Circle is white and pulsing.	Grinding Ring has less than 10% of life remaining. We Recommend that the user order a replacement Grinding Ring by visiting www.sparxhockey.com .
	Circle is white and blinking.	User has attempted to start Alignment Mode while a Grinding Ring is installed.
	Circle is red and steady.	No Grinding Ring installed.
	Circle is red and pulsing.	During sharpening, the Grinding Ring has less than 10% of life remaining. We Recommend that the user order a replacement Grinding Ring by visiting www.sparxhockey.com .
	Circle is red and blinking.	Grinding Ring is Empty.
	Circle half red/half white - alternate blinking.	User has attempted to sharpen with a cycle count greater than the number of cycles remaining on the Grinding Ring .

3 SETUP

ASSEMBLING THE SHARPENER

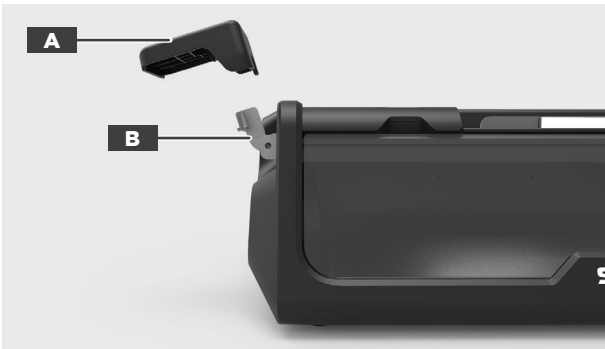
▶ To watch the How-To video, visit sparxhockey.com/assembly.

1 PLACE SHARPENER

Place the sharpener on a sturdy, level surface. Locate the sharpener so that the vacuum hose can be connected easily from the sharpener to the vacuum system.

2 INSTALL THE CLAMP LEVER

Slide the **Clamp Lever** (A) onto the **Lever Dock** (B). Press the lever down until it clicks into place. When the **Clamp Lever** is engaged, it will lay at a slight angle.



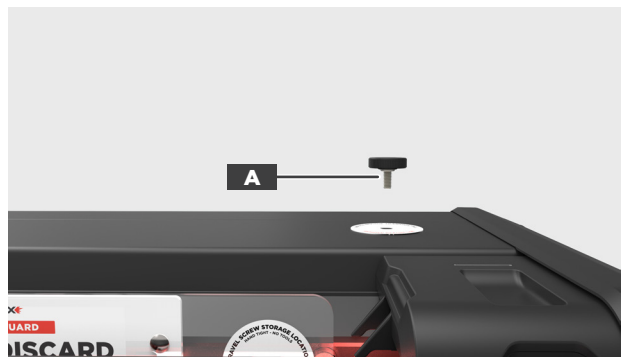
3 REMOVE THE TRAVEL GUARD

Open the **Skate Clamp** by pressing and holding down the **Clamp Lever**. Remove the **Travel Guard**. Release the **Clamp Lever**.



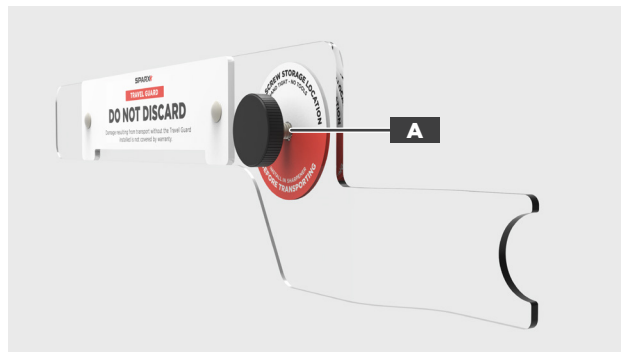
4 REMOVE THE TRAVEL SCREW

Remove the **Travel Screw** (A) by turning counter-clockwise until loose.



5 STORING THE TRAVEL SCREW

Install the Travel Screw into the storage location on the **Travel Guard** (A) by turning clockwise until hand-tight. Do not over-tighten.



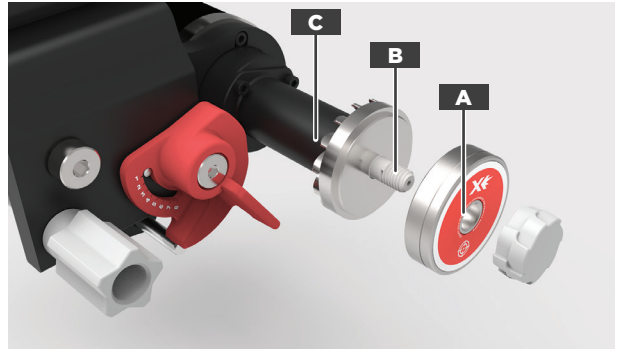
Transporting or moving the Sharpener without the **Travel Guard & Travel Screw** installed voids your **Warranty and/or Extended Service Plan**. Always remove the **Travel Guard & Travel Screw** before operating the Sparx Sharpener.

6 PLUG IN THE POWER CORD

Plug the **Power Cord** into the **Power Input Port** on the back of the sharpener. Plug the other end into a wall outlet. Toggle the switch on the **Power Input Port** to the on position (I=on, O=off).



the install position, and the sharpener will play a “ready” tone. While holding the **Grinding Ring Shaft (C)**, unscrew the **Thumb Nut (A)**. Slide the **Alignment Ring (B)** onto the **Grinding Ring Shaft (C)**, with the label facing out. Replace and tighten the **Thumb Nut** until hand-tight. Close the **Glass Door**.



INSTALLING THE PV100 VACUUM

For installation of the Auto-Switch, see included instructions.

1 CONNECT THE SUCTION HOSE

Install the **Vacuum** near the sharpener, preferably at floor level, or under the table that the sharpener is installed on. This is recommended for noise suppression. Connect the included **Suction Hose** directly from the **Exhaust Port** to one of the vacuum’s inlet ports.

2 CONNECT THE FOOTSWITCH

If using an accessory **Footswitch**, connect the power cord for the **Vacuum** to the **Footswitch** and connect the **Footswitch** Power Cord to a wall outlet. Ensure that the power switch for the **Vacuum System** is turned on. The **Footswitch** can then be used to turn the **Vacuum** on during sharpening, and turn the **Vacuum** off when sharpening is complete.

2 INSTALL THE OPTICAL ALIGNMENT TOOL

Press down on the **Clamp Lever** to open the **Skate Clamp**. Place the **Optical Alignment Tool** (with Sparx® logo facing towards the user) into the **Skate Clamp** and let it fall into place. Release the **Clamp Lever**.



ALIGNMENT

📺 To watch the How-To video, visit sparxhockey.com/alignment.

! The Alignment process is required when you first receive your Sparx® Sharpener and also after every time the sharpener is moved and/or travels.

1 INSTALL THE ALIGNMENT RING

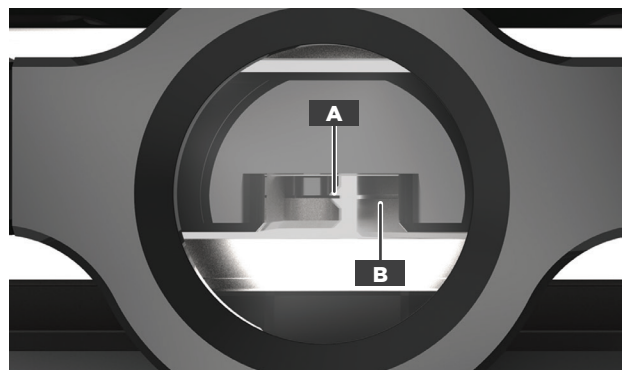
Open the **Glass Door**. The **Carriage** will automatically move into

3 INITIATE ALIGNMENT MODE

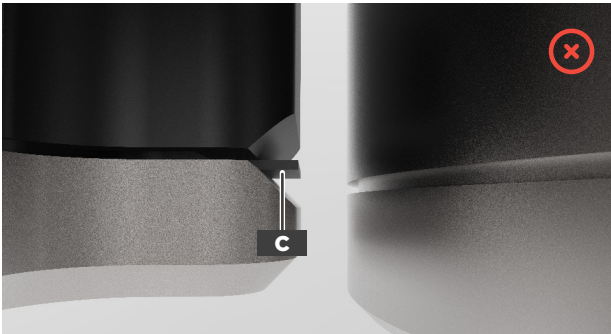
Press the **Alignment Button** to send the **Carriage** to its alignment position. When the **Carriage** is in place, a tone will sound and the case will illuminate blue.

4 LOCATE THE TAB AND GROOVE

Look through the eyepiece of the **Optical Alignment Tool** and locate the indicator tab (A) of the **Optical Alignment Tool** and the groove (B) on the **Alignment Ring**.

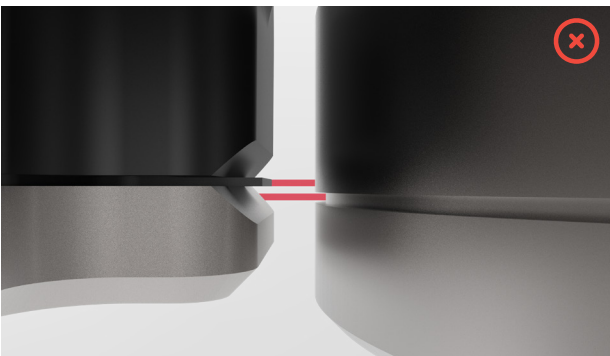


Ensure you are looking straight through the eyepiece directly above the indicator tab and groove. If you see the indicator tab side wall (C) when looking through the eyepiece, you are not directly above the indicator tab and groove. Adjust your line of sight until you can no longer see the indicator tab side wall.

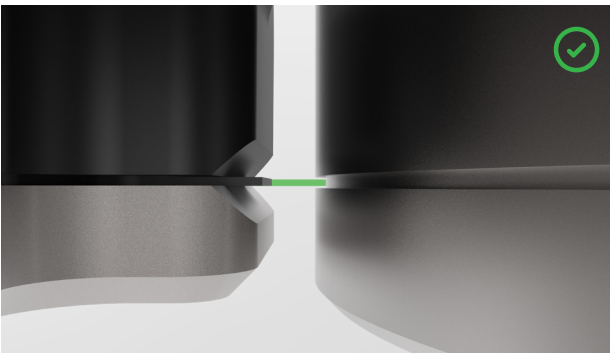


5 INSPECT THE ALIGNMENT

If the indicator tab of the **Alignment Tool** is not aligned with the groove on the **Alignment Ring** (as shown below), move to step 6.



If the indicator tab of the **Alignment Tool** is aligned with the groove on the **Alignment Ring** (as shown below) skip to step 8.



6 LOCATE THE ALIGNMENT ADJUSTMENT KNOB

Open the **Glass Door** and locate the gray **Alignment Adjustment Knob (A)** inside of the sharpener.



7 ADJUST THE ALIGNMENT

While looking through the **Optical Alignment Tool**, turn the **Alignment Adjustment Knob** until the groove on the **Alignment Ring** (right) lines up with the indicator tab of the **Alignment Tool** (left), as shown in step 5. Close the **Glass Door** when aligned.

8 END ALIGNMENT MODE

End **Alignment Mode** by pressing the **Alignment Button**.

9 REMOVE THE OPTICAL ALIGNMENT TOOL

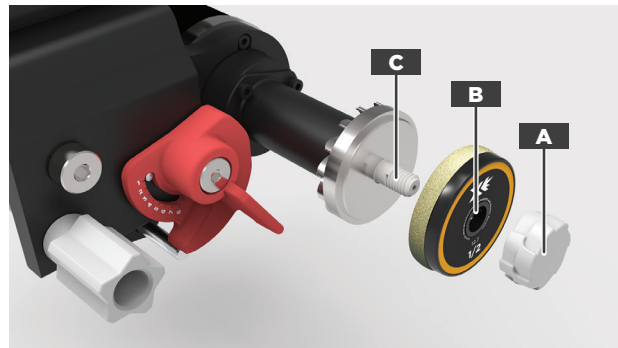
Press down on the **Clamp Lever** to open the **Skate Clamp**. Remove the **Optical Alignment Tool**.

10 REMOVE THE ALIGNMENT RING

Open the **Glass Door**. The **Carriage** will automatically move into the install position and the sharpener will play a “ready” tone. While holding the **Grinding Ring Shaft**, unscrew the **Thumb Nut** and remove the **Alignment Ring**.

11 INSTALL THE GRINDING RING

While holding the **Grinding Ring Shaft (C)**, slide the **Grinding Ring (B)** on the **Grinding Ring Shaft (C)**, label facing out, and replace and tighten the **Thumb Nut (A)** until hand-tight. Close the **Glass Door**.



4

OPERATION

LOADING A SKATE

**For loading goalie skates and youth skates, see the end of this section.*

1 LOAD THE SKATE

Press and hold down the **Clamp Lever** to open the **Skate Clamp**. With the skate toe pointing right and the laces tucked into the skate, set the skate into the **Skate Clamp** slot letting the plastic blade holder rest on top of the clamps. Center the skate blade in the **Skate Clamps**. Release the **Clamp Lever**.



We recommend inserting the skate into the **Skate Clamp** with the toe pointing to the right. For most skate blades, this orientation allows for the greatest flexibility in **Grinding Ring** height adjustment. It is, however, acceptable to insert the skate with the toe facing in either direction.

2 CLOSE THE PROTECTIVE SLOT COVERS

Move each **Protective Slot Cover** (A) in toward the skate to close the gap between the skate and the cover. Use caution not to allow the slot cover to exert excessive force on the skate as this may affect the alignment of the sharpening.



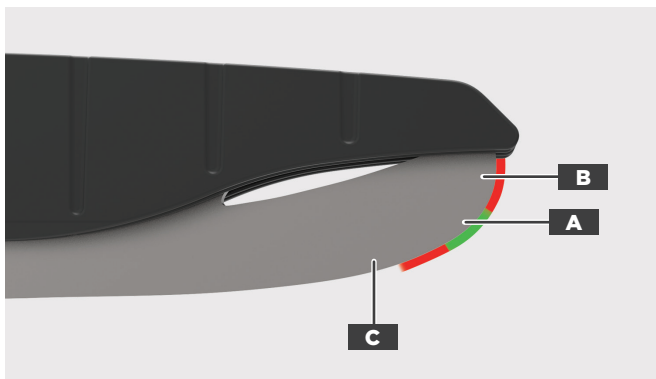
ADJUSTING THE GRINDING RING HEIGHT

To watch the How-To video, visit sparxhockey.com/ringheight.

! For every pair of skates sharpened, you must assess the height of the **Grinding Ring** and adjust if necessary.

We will first introduce a few new concepts, and then move into the actual adjustment. We want to define an intersection zone, where the vertical face of the blade (B) meets the nearly horizontal face of the blade (C).

This zone can be a curved section of blade (A) like that shown in the figure below or in some cases, it can be a point where surfaces (B) and (C) meet.



When the intersection zone is a curved surface (A as shown above) the **Grinding Ring** can safely initially contact the blade anywhere in this region (A).

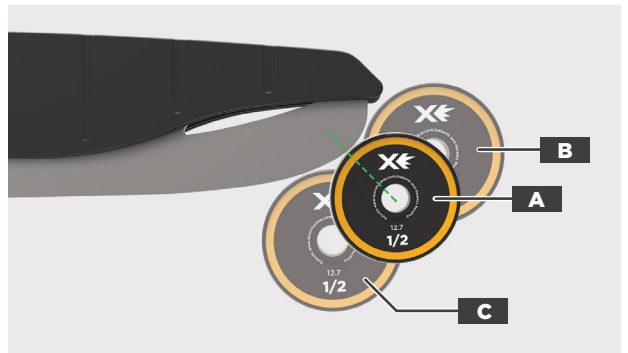
When the intersection zone is a point, which is more common with skates that have been sharpened multiples times, the first contact between the **Grinding Ring** and the blade should be just below the point.

1 INITIATE MOVE MODE

Press the **Move Button** on the **Keypad**. This will set the **Grinding Ring** into **Move Mode** and allow you to control its movement.

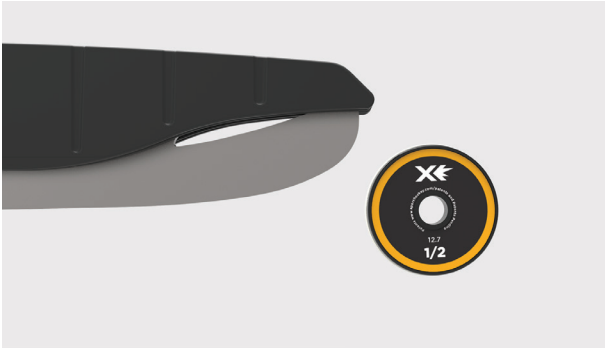
2 INSPECT THE CONTACT POINT

Use the **Left** and **Right Buttons** to touch the **Grinding Ring** to the skate blade. Inspect its contact point and be sure it is in the desired position. In the graphic below you will see an example of a contact point that correctly set (A), too high (B), and too low (C). Another way to help visualize the correct contact point would be drawing an imaginary line (green dashed line in the example below) from the center of the **Grinding Ring** to the initial contact point, the line should be at a 45 degree angle. If the **Grinding Ring** is not in a desired position, follow step 3. If the **Grinding Ring** is in a desired position, skip to step 6.



3 MOVE THE CARRIAGE INTO POSITION

Using the **Left** and **Right Buttons** on the **Keypad**, back the **Grinding Ring** off the toe of the skate blade 1/4 inch.



4 ADJUST THE GRINDING RING HEIGHT

Open the **Glass Door**. Locate the red **Height Adjustment Knob (A)**. Turn the knob left to raise the height or right to lower the height until the **Grinding Ring** is at the desired height. The knob is labeled 1-8, with 8 being the highest setting for the **Grinding Ring** and 1 being the lowest setting.



5 INSPECT THE CONTACT POINT

Close the **Glass Door**. Once the **Glass Door** has been closed, using the **Left** and **Right Buttons**, touch the **Grinding Ring** to the skate blade. Inspect its contact point and be sure it is in its desired position. Repeat steps 4 and 5 until the **Grinding Ring** makes contact at the desired position.

6 END MOVE MODE

Press the **Move Button** again to send the **Grinding Ring** back to its home position.

SELECTING THE NUMBER OF CYCLES

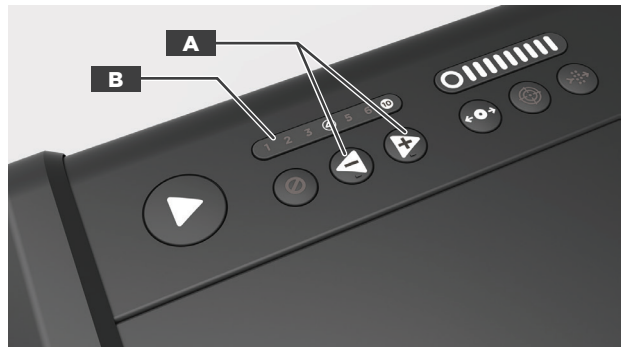
To watch the How-To video, visit sparxhockey.com/cycle.

When the sharpener moves the **Grinding Ring** out and back over the skate blade once, it is called a cycle.

The Sparx® Sharpener comes set automatically to a standard **4** four cycles with all standard Radius Ring® and FIRE Ring® **Grinding Rings**. We recommend trying four cycles to start and moving higher or lower as needed. Typically, four cycles will handle normal wear and tear (and even small nicks) from one to four hours of skating between sharpenings. For New Steel, refer to “Sharpening New Steel” at the end of this Operation section.

1 ADJUST THE CYCLE COUNT

Use the **Left** and **Right Buttons (A)** on the **Keypad** to adjust the number of cycles desired. The number of cycles selected will be illuminated on the **Cycle Counter (B)**.



SHARPENING SKATES

🔗 To watch the How-To video, visit sparxhockey.com/sharpening.

Once you have loaded the skate, closed the **Protective Slot Covers**, and adjusted the height of the **Grinding Ring**, you are ready to begin sharpening.

To cancel the cycles at any point during the sharpening, press the **Cancel Button** once. This will send the **Carriage** back to its home position at the end of its current pass.

1 TURN ON PV100 VACUUM SYSTEM

If using an accessory **Footswitch**, press down on the pedal to power on the external ventilation during sharpening.

2 BEGIN SHARPENING

Press the **Play Button**. Once the button has been pressed, it will change from white to blue and the sharpening process will begin.

If the **Grinding Ring** skips, comes to a halt, or your sharpener suddenly powers off when it first makes contact with the blade, the **Grinding Ring's** height is too high. When properly set, the **Grinding Ring** should make a smooth transition onto the skate blade.

For guidance selecting a proper **Grinding Ring** height, refer back to "Adjusting the Grinding Ring Height" earlier in this Operation section.

Upon pressing the **Play Button**, the **Cycle Counter** will flash with the current cycle number until that cycle (out and in) is completed. The sharpener will continue to run until all cycles have been performed.

At the completion of the final cycle, the end of sharpening is marked by a "cycle complete" tone and the case LEDs will turn green.

ADDITIONAL CYCLES

If additional cycles are desired, you can reset the cycle count and press the **Play Button** again.

UNLOADING A SKATE

1 DISENGAGE PROTECTIVE SLOT COVERS

Move both **Protective Slot Covers** (A) away from the skate.



2 REMOVE THE SKATE

Press and hold down the **Clamp Lever** to open the **Skate Clamp**. Remove the skate from the **Skate Clamp** and release the **Clamp Lever**.



EDGE DEBURRING

▶ To watch the How-To video, visit sparxhockey.com/deburr.



We recommend using protective gloves when deburring the skate blade.

1 DEBURR THE BLADE WITH THE STONE

Press the **Honing Stone** (A) against the face of the skate blade (B). Do not put pressure on the side of the stone closest to the blade edge. With light pressure, press down on the lower side of the stone (C) and slowly run the stone back and forth along the length of the blade for four full passes.



2 REPEAT ON THE OPPOSITE SIDE

Turn the skate over. Repeat step 1 on the opposite side of the blade.

3 DEBURR THE BLADE WITH THE STROP

Press the **Leather Strop** (A) against the edge of the skate blade (B) at a 45 degree angle. With light pressure, slowly run the strop back and forth along the length of the edge for four full passes



4 REPEAT ON THE OPPOSITE SIDE

Turn the skate over. Repeat step 3 on the opposite edge of the blade.

POWERING OFF

1 LOCATE THE POWER INPUT PORT

On the back of the sharpener, locate the **Power Input Port**.

2 TURN OFF THE SHARPENER

Toggle the **Power Input Port** switch to the off position (I=on, O=off).

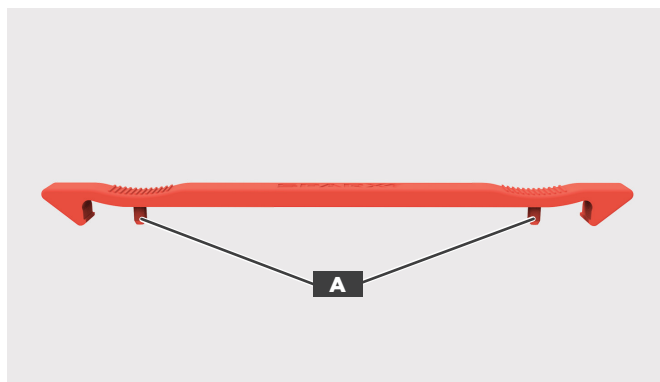
3 TURN OFF PV100 VACUUM SYSTEM

If using an accessory **Footswitch**, press down on the pedal to power off the external ventilation during sharpening.

GOALIE SKATES

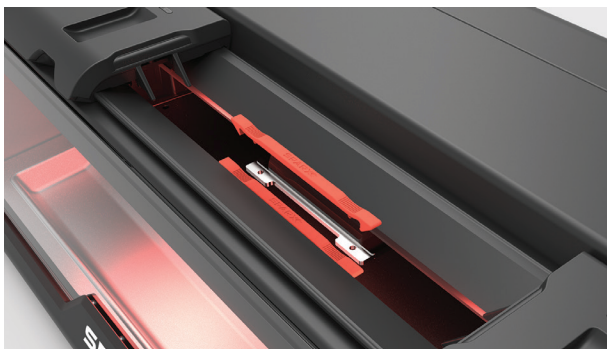
▶ To watch the How-To video, visit sparxhockey.com/loadgoalie.

Before loading a goalie skate, you must first install the **Goalie Risers** onto the **Skate Clamp** (one **Goalie Riser** on each side of the **Skate Clamp**). Each Goalie Riser has two **Anchor Pins** (A) as shown below.



1 INSTALL THE GOALIE RISERS

Align the **Anchor Pins** of the **Goalie Risers** to the **Anchor Slots** of the **Skate Clamp**. Once aligned, press down firmly until you feel the **Goalie Risers** snap into place.

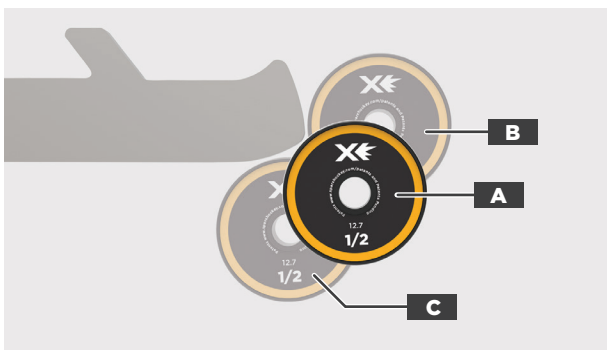


2 CONTINUE THE SHARPENING PROCESS

Refer to “Loading a Skate” in the Operation section of the manual. When adjusting the **Grinding Ring Height**, refer the graphic in step 3.

3 ADJUST THE GRINDING RING HEIGHT

Refer to “Adjusting the Grinding Ring Height” in the Operation section of the manual using the figure below as your guide where the desired contact point is A, contact point B is too high and contact point C is too low.



4 CONTINUE THE SHARPENING PROCESS

Refer to “Sharpening Skates” in the Operation section of the manual.

5 REMOVE THE GOALIE RISERS

Pull up on each end of the **Goalie Risers** to remove from the **Skate Clamp**.

SHARPENING NEW STEEL

To watch the How-To video, visit sparxhockey.com/newsteel.



Before loading new steel, take a dark colored marker and fill in three strips (1 inch in length the full width of the blade) on the toe, heel, and middle of the bottom surface of the skate blade. To ensure you have sharpened the entire blade, inspect the blade after running the cycles and if the sharpening is complete, all of the marker on the skating surface will be removed.

1 LOAD THE SKATE

After applying the marker (A in the below example), follow the instructions in “Loading a Skate” in the Operation section of this manual.

2 ADJUST GRINDING RING HEIGHT

Follow the instructions in “Adjust the Grinding Ring Height” in the Operation section of this manual.

3 SELECT 10 CYCLES

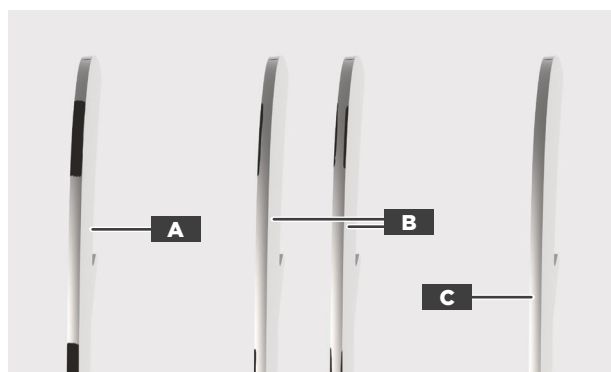
Using the **Left** and **Right Buttons**, select **10** on the **Cycle Counter**.

4 CONTINUE THE SHARPENING PROCESS

Refer to the Operation section of the manual.

5 INSPECT BLADE SURFACE

If the marker is gone (C in the example below), you have successfully set your edges. If there is still marker left on the blade (B), continue running cycles until it is completely gone. Due to variations in blade thickness, steel quality, and edge height difference, some new steel may require fewer than 10 cycles, and some more. If you are using our **XG Grinding Rings**, the cycle count will be lower.



TROUBLESHOOTING

ERROR TYPES

There are two types of errors encountered by the Sparx® Sharpener that can interrupt operation. These types are: Function Entry errors and System Stop errors. Each error type is described in the table below along with information about how the user is informed of the error.

ERROR TYPE	DESCRIPTION	DISPLAY METHOD
I: Function Entry	Errors that prevent the user from entering into a function (e.g. sharpening or alignment).	<ul style="list-style-type: none"> • Displayed through the user interface (e.g. flashing lights at the area of concern). • Temporarily displayed on the Cycle Counter. • Not saved to Error History.
II: System Stop	Errors that cause the sharpener to exit out of a function because of safety concerns or to prevent sharpener damage.	<ul style="list-style-type: none"> • Displayed on the Cycle Counter. • All functionality is disabled until the user acknowledges the error by pressing the ⊘ Cancel Button. • Saved to Error History.

USER INTERFACE PROMPTS

If you are attempting to sharpen a skate, go into **Alignment Mode**, or go into **Move Mode**, but the sharpener is not allowing it, the sharpener will temporarily display an interface prompt, show an error code, and sound an “error” tone.

The most common Interface prompts are listed in the table for interface prompts below. If the user interface prompt is unclear or only an error code is displaying, refer to the Error Code table on the next page.

ACTION	CAUSE	CORRECTIVE ACTION
Interior case light is blinking red.	Dust Tray is missing.	Reinstall Dust Tray .
Grinding Ring Life Indicator circle is blinking red/white.	Grinding Ring has insufficient life remaining for selected sharpening operation.	Sharpener will reset Cycle Count to maximum available cycles, run sharpener with the new value or lower.
Grinding Ring Life Indicator circle is blinking red.	Grinding Ring not found. / Grinding Ring empty.	Install a valid Grinding Ring .

In the event that an error cannot be resolved, please contact customer support at Sparx Hockey.

SPARX HOCKEY CUSTOMER SUPPORT

help@sparxhockey.com (fastest response)

1-855-SPARX HQ (1-855-772-7947)

ERROR CODES

1 2 3 ④ 5 6 10

For all errors, an error code is displayed on the **Cycle Counter** (1-2-4 is being displayed in the figure above), these error codes will either be permanently or temporarily displayed. If an error code was temporarily displayed and you want to see it again, retrying the action without fixing the underlying cause will display the error. Permanent error codes require the user to acknowledge the error before the error will be resolved and operation can continue. Permanent Error Codes will also be stored in the Error History (discussed below). The troubleshooting table below suggests corrective actions to resolve the error.

If the user wishes to cycle through previous permanent Error Codes, hold down the **Cancel Button** for 2 seconds until a tone is heard (button initially emits an “error” tone when pressed). Once the beep is heard, the most recent Error Code is displayed. Pressing the **Left** and **Right Buttons** will cycle through previous Error Codes.

ERROR CODE	CAUSE	CORRECTIVE ACTION
1 - 2 - 4	Glass Door open.	Close Glass Door .
1 - 2 - 5	Excessive Glass Door opening during alignment.	Attempt alignment again while leaving Glass Door closed until Carriage stops at alignment location.
1 - 2 - 6	Dust Tray missing.	Confirm that Dust Tray is correctly installed.
1 - 2 - 10	Filter Switch Error.	Call Customer Support at 1-855-SPARX HQ (1-800-772-7947).
1 - 3 - 10	Attempted to start Alignment Mode with Grinding Ring installed.	Remove skate and install Alignment Ring .
1 - 4 - 5	Pressed the Play Button in Alignment Mode .	Exit Alignment Mode by pressing the Alignment Button or Cancel Button prior to pressing the Play button.
1 - 4 - 6	Pressed the Play Button in Move Mode .	Exit Move Mode by pressing the Move Button or Cancel Button prior to pressing the Play button.
1 - 5 - 10	Left Protective Slot Cover error.	Call Customer Support at 1-855-SPARX HQ (1-800-772-7947).
1 - 6 - 10	Right Protective Slot Cover error.	Call Customer Support at 1-855-SPARX HQ (1-800-772-7947).
2 - 3 - 6	Sharpener failed to detect skate.	Ensure that skate is installed in the Skate Clamp correctly and the Grinding Ring height is adjusted properly.
2 - 4 - 6	Grinding Ring has insufficient life remaining for selected sharpening operation.	Sharpener will reset Cycle Count to maximum available cycles. Run sharpener with the new value or lower.
2 - 4 - 10	Grinding Ring empty.	Install a valid Grinding Ring .
2 - 5 - 6	Grinding Ring not found.	Install a valid Grinding Ring .
2 - 5 - 10	Grinding Ring read incomplete.	Repeat process and allow extra time between steps. If this does not resolve the problem, replace the Grinding Ring .
2 - 6 - 10	Grinding Ring read error.	Install a valid Grinding Ring .
3 - 4 - 10	Hardware Fault Circuitry failure.	Call Customer Support at 1-855-SPARX HQ (1-800-772-7947).
3 - 5 - 10	Grinding motor overcurrent.	Confirm that the Grinding Ring height is adjusted properly and nothing is obstructing the Grinding Ring .
3 - 6 - 10	Translation Error - Limit undetected.	Confirm that the Carriage is not obstructed.
4 - 5 - 10	FileSystem Incompatibility	Call Customer Support at 1-855-SPARX HQ (1-800-772-7947).
4 - 6 - 10	Tag Error Log Failure	Call Customer Support at 1-855-SPARX HQ (1-800-772-7947).

6

MAINTENANCE

REMOVING AND EMPTYING
THE DUST TRAY

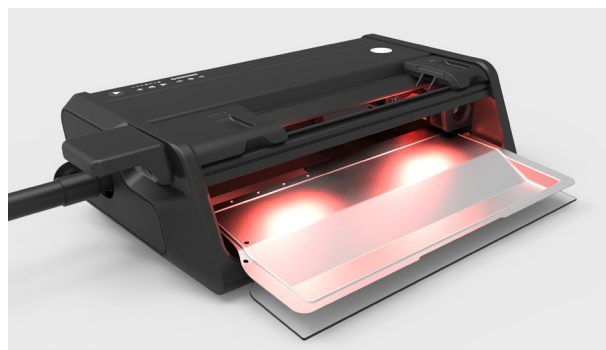
▶ To watch the How-To video, visit sparxhockey.com/dusttray.

Maintenance Frequency: Perform the following steps after **every 20 Sharpenings** (160 cycles on any of the following: Radius Ring®, FIRE Ring®, or X-Grind Ring) and before moving and/or traveling with the sharpener.

1 REMOVE AND EMPTY THE DUST TRAY

Open the **Glass Door** and remove the **Dust Tray**. To empty **Dust Tray**—wipe completely clean with a damp cloth (water).

⚠ *Do not use any solvents or cleaning chemicals in and around the **Skate Sharpener**.*



2 VACUUM SHARPENER

After removing the **Dust Tray**, vacuum thoroughly around the inside of the sharpener. Detach the vacuum hose from the port on the side of the machine and use the supplied attachments for this purpose.

3 REPLACE THE DUST TRAY

Slide the **Dust Tray** back into the machine. Close the **Glass Door**.

There are no user-repairable parts in the Sparx® Sharpener. Refer to “Exclusions” in the Warranty section for more information. Maintenance of the Sparx® Sharpener is limited to the procedures outlined in this section.

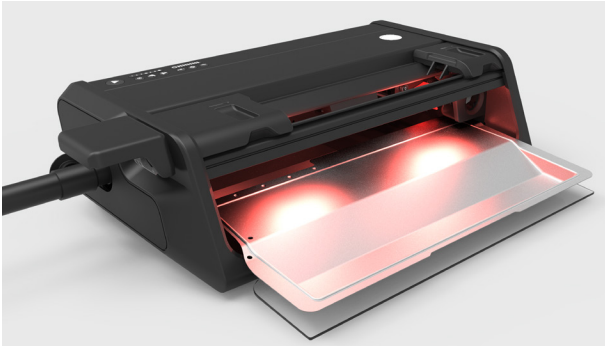
TRAVELING WITH THE SHARPENER

▶ To watch the How-To video, visit sparxhockey.com/travel.

1 REMOVE AND EMPTY THE DUST TRAY

Open the **Glass Door** and remove the **Dust Tray**. To empty **Dust Tray**—wipe completely clean with a damp cloth (water).

! Do not use any solvents or cleaning chemicals in and around the **Skate Sharpener**.



2 VACUUM SHARPENER

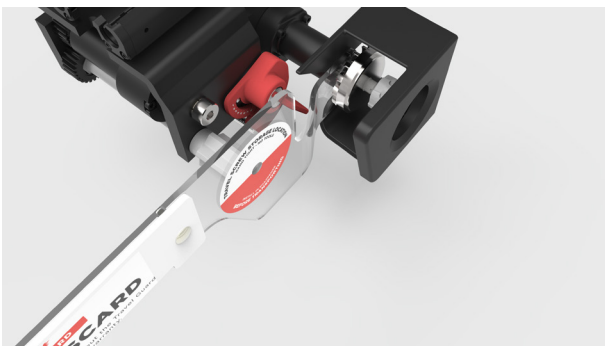
After removing the tray, vacuum throughly around the inside of the sharpener. Detach the vacuum hose from the port on the side of the machine and use the supplied attachments for this purpose.

3 REPLACE THE DUST TRAY

Slide the **Dust Tray** back into the machine. Close the **Glass Door**.

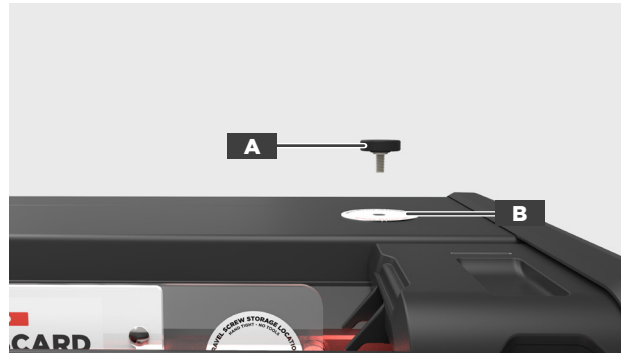
4 INSTALL THE TRAVEL GUARD

Open the **Skate Clamp** by pressing and holding down the **Clamp Lever**. Install the **Travel Guard** by placing the claw of the **Travel Guard** behind the **Grinding Ring Shaft's** impeller as shown below. Release the **Clamp Lever**. Ensure that the middle section of the **Travel Guard** is held securely in the **Skate Clamp**.



5 INSTALL THE TRAVEL SCREW

Install the **Travel Screw (A)** into the **Screw Slot (B)** by turning clockwise until hand-tight.



6 REMOVE THE CLAMP LEVER

Slide the **Clamp Lever (A)** off of the **Lever Dock**.



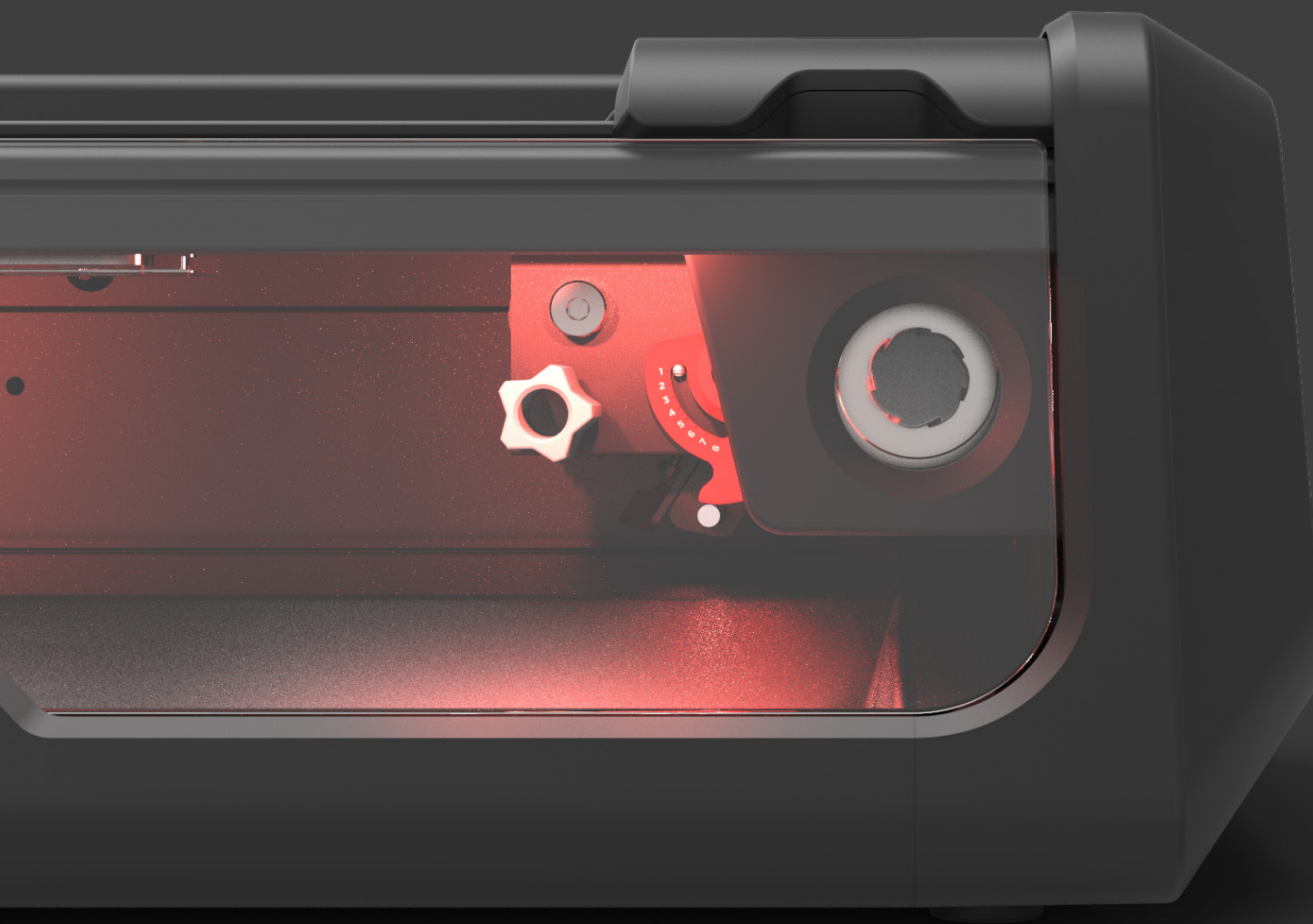
When setting up the Sparx sharpener after travel, wipe down the **Grinding Ring Shaft's** face and threaded arbor to remove any unwanted steel shavings that may have gathered during transit. This will ensure a proper fit between the **Grinding Ring Shaft** and the **Grinding Ring**.

7 WARRANTY

VELASA SPORTS MAY, AT ANY TIME AND IN ITS SOLE DISCRETION, MODIFY ANY OF THE TERMS AND CONDITIONS CONTAINED IN THE WARRANTY POLICY. ANY PURCHASE OF A SPARX HOCKEY PRODUCT IS COVERED UNDER THE ASSOCIATED PRODUCT WARRANTIES POSTED AT

[SPARXHOCKEY.COM/WARRANTIES](https://www.sparxhockey.com/warranties)

AT THE TIME OF SALE OF THE SPARX HOCKEY PRODUCT.



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