



## Wizard IV grinder



**INSTRUCTION MANUAL**

# SAFETY INSTRUCTIONS



**IMPORTANT! READ FIRST**



For your own safety be sure to read, understand and follow all warnings, safety rules and instructions in this instruction manual before using this machine. Failure to do so can result in serious personal injury. This instruction manual is intended for the Wizard IV grinder. **SAVE THESE INSTRUCTIONS.**

**⚠ WARNING:** This machine includes products that can expose you to chemicals including nickel, which is known to the State of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).  
**This warning applies to the 1" and 1/4" diamond grinder bits.**

## Setup

**Intended for indoor use only.**

**Avoid dangerous environments.** Do not use this machine near gasoline or other flammable liquids.

**Make sure machine is securely placed on a sturdy, level surface with ample working area and away from open electrical outlets.**

**Do not place grinder in a pan, on a towel, or on carpeting.**

**Check for damaged parts.** Before use, always check for any damaged parts to determine that it will operate properly and perform its intended function. Check for proper alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect operation. Damaged parts must

be replaced through the manufacturer of this machine to avoid risk of injury.

**Use only Inland Craft Wizard IV grinder parts for replacement parts.**

Use of any other parts not originally intended for these machines may create a hazard or cause product damage.

**Know your power tool.** Read this instruction manual carefully. Learn the correct applications and limitations as well as specific warnings and hazards related to this machine.

## Usage

**Always wear proper eye protection** to protect you from any debris that may fly out while you're grinding. We recommend wearing safety goggles or safety glasses with side shields. Everyday glasses are not safety glasses. If anyone is around the machine while it's in use, they must also wear safety glasses.

# SAFETY INSTRUCTIONS

**Always wear proper apparel.** Do not wear any loose clothing, gloves, neckties or jewelry that can get caught in the machine's moving parts. Secure long hair with a rubber band or hair tie.

**Keep work area well lit and clean.** Make sure your work area is not cluttered.

**Do not operate unattended.** Adult supervision is required at all times. Never leave the machine running unattended.

**Do not operate this machine while under the influence of drugs, alcohol or any medication.**

**Never run diamond grinder bits dry.** Diamond grinder bits are designed to be used with a lubricant, such as water, and will be ruined immediately if used dry. Always make sure you are using adequate water while grinding so that the material's dust doesn't form. This dust contains chemicals that can be hazardous to your lungs if inhaled and is known to cause cancer, birth defects or other reproductive harm. To reduce your exposure to these chemicals, work in a well ventilated area and wear a face or dust mask.

**Never grind more than one workpiece at a time.**

**Some materials contain poisonous elements.** Avoid grinding materials that contain uranium, mercury, lead, arsenic, etc. Make sure you know the material you are grinding.

**Do not allow water to run down the shaft and into the motor.** This will cause the motor to instantly burn out. This machine is designed in such a way that this does not occur with normal use.

**Do not overfill the water reservoir.** Overfilling can create electrical shock and damage the motor.

**Do not force the tool or attachment to do a job it is not designed to do.**

**Avoid awkward operations and hand positions.** Make sure you have good balance while working on this machine. A sudden slip could cause your hand to move into the moving grinder bit.

**Always stay alert.** You must be focused while working on this machine. Your grinding material can catch on the grinder bit and eject out of the area.

## Maintenance

**Always disconnect from power before servicing.** Disconnect machine from power source before making any adjustments and when not in use.

**Do not abuse the power cord.** Never carry the machine by the cord or yank it to disconnect from receptacle. Keep cord away from heat, oil and sharp edges.

**Do not open the motor housing.** There are no user serviceable parts inside.

**Clean and dry machine after use.**

# TABLE OF CONTENTS

SAFETY INSTRUCTIONS .....	2
WARRANTY INFORMATION .....	5
MACHINE DETAILS .....	6
ASSEMBLY .....	7
USAGE .....	9
MAINTENANCE .....	10
ACCESSORIES .....	11

## REGISTER YOUR PRODUCT

Scan the QR code below to register your Inland Craft grinder. Registering your machine is essential to facilitate any warranty related requests. You can also register at [inlandcraft.com/product-registration](https://inlandcraft.com/product-registration) or over the phone with us at (248) 583-7150.



# WARRANTY INFORMATION

We stand behind the quality of our grinder machines. The Inland Craft Wizard IV grinder is covered by a 5-year warranty from the date of purchase. **Registering your grinder machine helps facilitate any warranty-related requests.**

## **What does this warranty cover?**

If your Inland machine fails under appropriate use during the warranty period, Inland Craft will repair or replace it at our discretion. Inland Craft guarantees to replace (after receipt and inspection) your included grinder bit, if the diamond cutting surface peels off due to any manufacturing defect.

## **What does this warranty not cover?**

This warranty does not cover problems resulting from abuse, misuse, intentional damage, incorrect usage, failure to adequately take care of the machine or improperly following the instructions.

## **Who is covered under this warranty?**

This warranty covers the original purchaser of the equipment and is non-transferable.

## **Whom should I contact if I need a warranty service?**

Contact Inland Craft directly by phone at (248) 583-7150 or by email at [info@inlandcraft.com](mailto:info@inlandcraft.com) and we will assist you through our warranty service.

**You must prove that you are under warranty by providing us with the original invoice of your machine or by registering your product in order to receive our warranty service.**

# MACHINE DETAILS

The image below shows parts included with your grinder machine

1. Grinder housing
2. Coolant reservoir tray
3. Storage compartment
4. Work surface
5. FaceShield
6. 1" Standard BitSert
7. Grinder splash guard
8. SecondStory work surface
9. 1" 100# diamond grinder bit w/ Allen wrench
10. 1/4" 100# diamond grinder bit w/ Allen wrench
11. Coolant sponges (2pcs)



# ASSEMBLY

## Filling the coolant reservoir

A water/coolant mixture prevents airborne glass dust, increases grinding speed, and prolongs the life of the diamond surface on the grinder bits. Coolant is also required when using any diamond tool. Remove the work surface, then pour 12 ounces (1½ cups) of clean water into the coolant reservoir. Only fill to the ridge on the coolant level indicator located in the water reservoir (Fig. A). Optionally, you can add a capful of Inland Craft diamond coolant (not included) to increase diamond bit life and grinding speed. Replace the work surface.

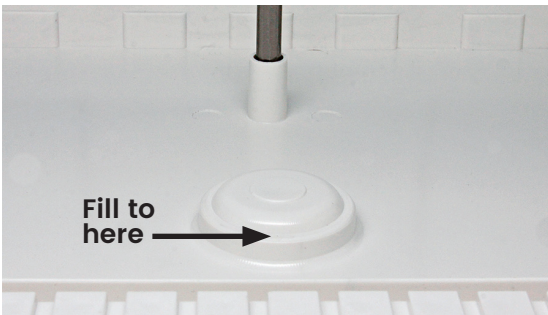


Fig. A

**\*IMPORTANT NOTES: Never pour water directly onto the grinder bit or down the motor shaft. Do not overfill the coolant reservoir; overfilling can create an electrical shock and damage the motor. Do not use antifreeze as a coolant.**

## Installing the grinder bit

In chronological order, install the 1" grinder bit according to the steps below and Fig. B on page 8. Install the 1/4" grinder bit according to the How to drill a hole instructions on page 9.

- 1** Insert the BitSert into the work surface.
- 2** Insert the splash guard into the installed BitSert.
- 3** Before installing the grinder bit, apply a thin coat of Inland Craft motor shaft lubricant (not included) to the motor shaft. This is to prevent the set screw from seizing to the motor shaft. Metal against metal, under pressure and over time can bond. Loosening the set screw between uses also prevents this. If you do not have the Inland Craft motor shaft lubricant, use a small amount of Vaseline.
- 4** Take the included 1" grinder bit and loosen the set screw using the included Allen wrench, turning counterclockwise.
- 5** Slide the 1" grinder bit onto the motor shaft, positioning the set screw over the flat side of the motor shaft. Bits should slide onto the motor shaft easily, **do not force!**
- 6** Lower the bit until just over 1/8" of the diamond is exposed above the work surface. Secure the bit using the Allen wrench, turning clockwise.

# ASSEMBLY

**\*IMPORTANT NOTE:** Always tighten and secure grinder bit set screws to the flat side of the motor shaft. Tightening the grinder bit to the rounded side can scar the shaft and prevent bit removal. Never force a bit onto the motor shaft and never attempt to pry off a bit. If the bit is stuck, please review our FAQ at [inlandcraft.com/faq](http://inlandcraft.com/faq) first. If you still need assistance, please contact Inland Craft at (248) 583-7150.

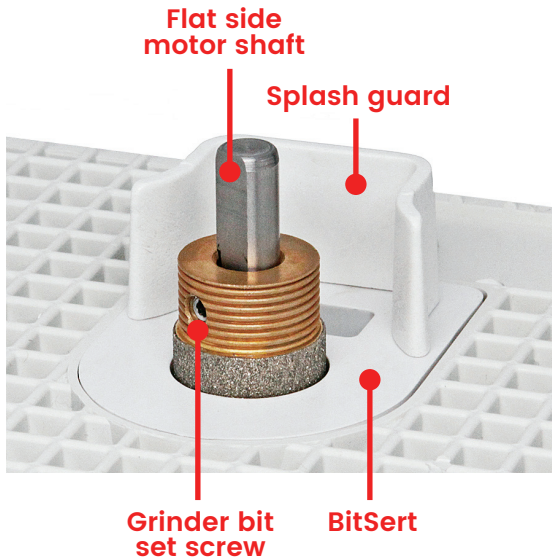


Fig. B

## Sponge placement

The included yellow sponge is what feeds the coolant to the grinding bit while you work. It is held in place by the BitSert. To install, first wet the sponge by running it under clean water. Insert the sponge into

the rectangular hole behind the BitSert, so that the bottom of the sponge makes contact with the coolant in the reservoir, and the top of the sponge makes contact with the diamond surface of the bit (Fig. C). The sponge must always have contact with the bit while grinding. If a white paste develops on the head or on your glass while grinding, either the sponge is not properly positioned or the water/coolant level in the reservoir is low. Periodically rinse out the sponge to remove accumulated grinding residue. When the sponge becomes worn, replace it.

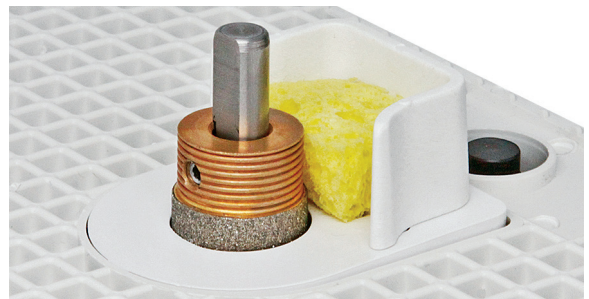


Fig. C

## FaceShield

The included FaceShield adds protection from grinding debris. Installation is quick and easy; follow the instructions on the backside of the FaceShield packaging.

## Storage compartment

The storage compartment is built-in to the coolant reservoir tray and is useful for storing small items such as grinder bits, Allen wrenches and sponges. Simply lift upward on the word "Wizard" to open, and replace to close.



# USAGE

## Fire it up!

Plug the power cord into a grounded electrical outlet. Put on safety goggles (not included) and turn on power by flipping the two-way power switch located on the left side of the machine.

## Grinding

Start by grinding a piece of scrap glass to get a 'feel' for the grinding action. Begin by pushing the glass into the grinding bit using light pressure and moving the glass back and forth across the bit. Slowly increase pressure until you feel comfortable with the grinding speed and your control. You'll quickly learn the optimum grinding pressure for the types of glass you use. When grinding out deep cuts, use intermittent pressure to allow coolant to rinse ground glass from the head. If a white paste forms on the bit, it is not getting enough coolant. Stop, turn off the machine, and check the sponge placement and coolant level. Grinding without coolant greatly reduces the life of your grinding heads.

As the diamond surface wears, you will feel it grind less effectively. When this happens, it is time to expose a new portion of the diamond surface. Loosen the set screw using the included Allen wrench and move the grinding head up on the shaft to expose a new 1/8" section of diamond. Secure the bit back in place by tightening the set screw against the flat side of the motor shaft. Reposition the sponge if needed.

## How to drill a hole in glass

The included 1/4" grinder bit is useful for drilling holes and intricate grinding. This bit is placed onto the motor shaft and sits on top of the 1" grinder bit. Loosen the set screw with the included Allen wrench, then slide the bit onto the shaft, securing the set screw to the flat side of the motor shaft. You need to supply coolant to the 1/4" bit while in use. Install the optional, included SecondStory work surface according to the instructions included with this accessory. The SecondStory makes it easier to use the 1/4" grinding bit and eliminates the need for the hand held sponge explained below because it has a built-in coolant reservoir.

Begin drilling the hole by holding the front surface of the glass against the upper edge of the bit at about a 45° angle, while holding the coolant soaked sponge against the bit and glass (Fig. D, shown without the SecondStory work surface). Use two hands. Slowly move the glass down onto the bit in a horizontal position. Continue to work the glass down and around the top of the bit in a circular motion, making sure to keep the glass and diamond wet at all times. You may need to soak the sponge with coolant several times. Reduce pressure as you begin to see the bit come through the back of the glass to avoid chipping. Practice before you drill your final project.



Fig. D

# MAINTENANCE

Maintenance to the Wizard IV grinder is minimal but important. Follow these guidelines to prolong the life and performance of your machine.

## Motor

The motor bearings are permanently sealed and lubricated. There is no internal maintenance required.

## Motor shaft

Apply Inland Craft motor shaft lubricant (not included) or a small amount of Vaseline to the motor shaft whenever you change or remove the grinding bits. Remove the bit if you won't be using the grinder for more than a week.

## Coolant reservoir tray

Remove and clean the coolant reservoir tray every four hours of use, more often if grinding heavily. To remove the reservoir tray, first remove any grinder bits from the motor shaft. Then, remove the work surface. Lift the reservoir tray upward and off of the grinder housing. Scrape the glass sludge into the trash and rinse clean. Reassemble, referring to the assembly section on page 7.

## Work surface

The work surface is reversible. When one side becomes worn, simply flip it over. Replacement work surfaces are available online.

## Coolant sponge

Periodically rinse out the coolant sponges to remove any accumulated grinding residue. Squeeze several times while holding the sponge under running water to rinse and clean it. When the sponge becomes worn, replace it.

## Keep your switch clean

Water and glass slurry may slop over the sides of the grinder and onto the switch. Wet hands handling the switch will also get glass slurry into the switch. Over time, this glass slurry builds up in the switch contacts. Because colored glass contains metal oxides, when significant quantities are there, the dried glass dust will make a live connection across the switch contacts.



Check out our YouTube channel for Wizard grinder maintenance videos and usage tutorials at [youtube.com/inlandcraft](https://youtube.com/inlandcraft)

# ACCESSORIES

Optional accessories and additional grinder bits available at [inlandcraft.com](http://inlandcraft.com)



## Jewelry bit

Use to grind grooves around the outside of glass, cabochons, beads and buttons for wire wrapping projects. Available in 220# diamond grit. Choose from 1 mm and 1.4 mm thickness.

SKU

1 mm: 40190, 1.4 mm: 40194



## Diamond drill bit

Use to drill precision holes and create fine, intricate details in your glass pieces. Available in 3/8" diameter. This bit requires the grinding/drilling adapter on the right.

SKU

40338



## Grinding/drilling bit adapter

This adapter is used with the diamond drill bit. Drill precision holes and create fine, intricate details without having to remove your 3/4" or 1" grinding head!

SKU

40317



## MagnaShield

Same as the FaceShield except with a built-in optical convex magnifying surface to reduce eye strain, making it easier to see.

SKU

50018



## LED lamp attachment

Attach this lamp to your grinder for more light while you grind. Three different color settings included. Fast and easy installation.

SKU

10011



## Diamond coolant

Add this high lubricity, water soluble diamond coolant to your water to increase diamond grinder bit speed and to prolong bit life.

SKU

50011



## **Manufactured by**

Reentel International Inc.  
44 Plaza Drive  
Westmont, IL 60559 - USA

### **Phone**

(248) 583-7150

### **Email**

[info@inlandcraft.com](mailto:info@inlandcraft.com)

### **Website**

[inlandcraft.com](http://inlandcraft.com)

### **Facebook**

[facebook.com/inlandcraft](https://facebook.com/inlandcraft)

### **Instagram**

[instagram.com/inlandcraft](https://instagram.com/inlandcraft)

### **YouTube**

[youtube.com/inlandcraft](https://youtube.com/inlandcraft)



made  
in USA