



Installation & Operating Manual

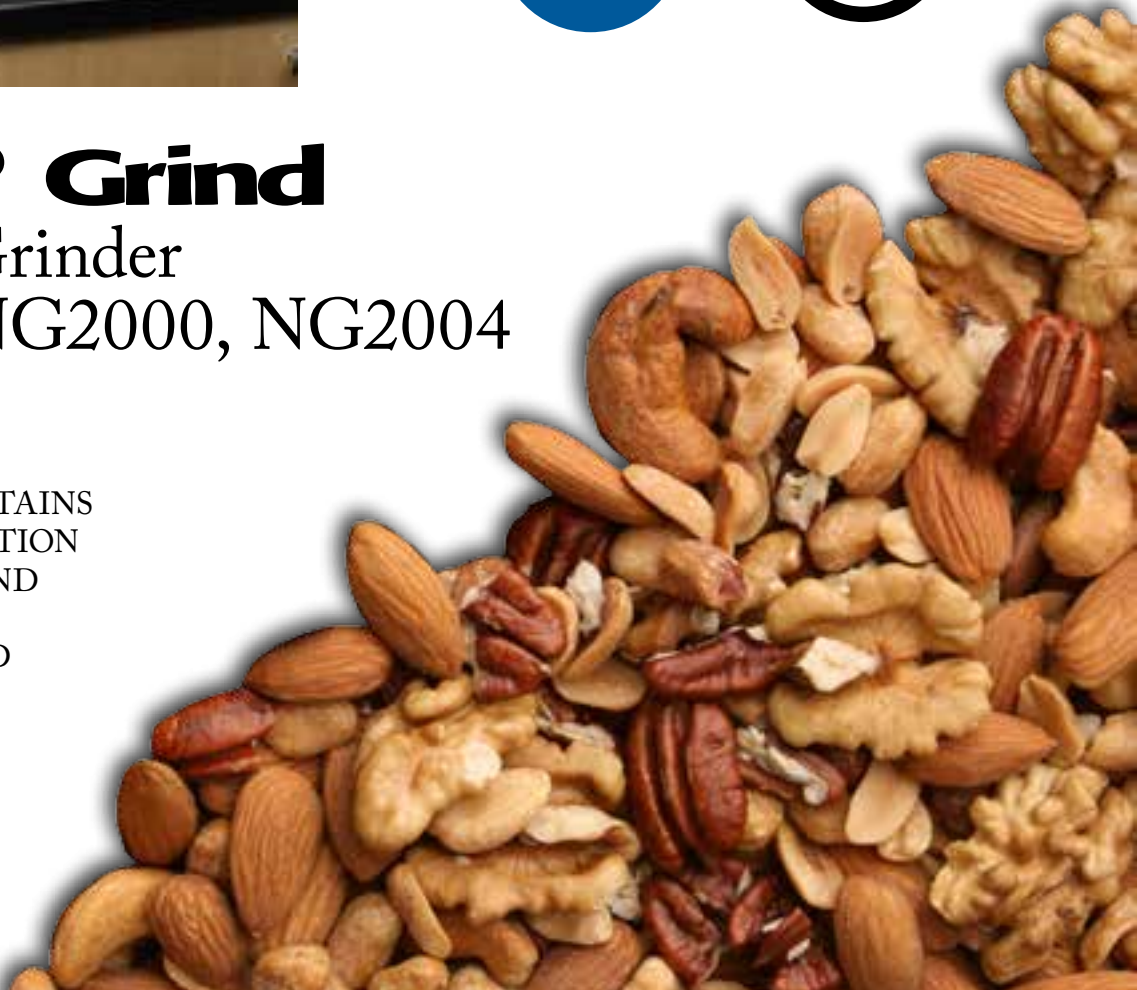
Revision Date: 20180125:1128

Revision: A



RHINO® Grind Nut Butter Grinder Model No. NG2000, NG2004

THIS DOCUMENT CONTAINS
IMPORTANT INFORMATION
AND MUST BE READ AND
UNDERSTOOD PRIOR
TO INSTALLATION AND
OPERATION OF NUT
GRINDER EQUIPMENT.



Access to Help

VIDEOS AND THIS MANUAL ARE ONLINE

We recommend reading every page of this paper RHINO® Grind manual, but using a QR code scanner on your smartphone will take you to an electronic webpage with videos, and electronic manual. Where you see this logo in this paper manual, you can scan to go to a video on the topic being discussed. This QR code and information can also be found on the RHINO® Grind when you need information.

If you do not have a QR code scanner, you can simply open a web browser, and type www.rhinogrinder.com/help to access the information.

PLEASE NOTE: Viewing these videos instead of reading the manual does not relieve you of any responsibility for knowing the information contained herein.

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The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

This Product is warranted only as provided in Trade Fixtures' Commercial Warranty applicable to this Product and is subject to all of the restrictions and limitations contained in the Commercial Warranty. Trade Fixtures will not be responsible for any repair, replacement or other service required by or loss or damage resulting from any of the following occurrences, including but not limited to, (1) other than normal and proper use and normal service conditions with respect to the Product, (2) improper voltage, (3) inadequate wiring, (4) abuse, (5) accident, (6) alteration, (7) misuse, (8) neglect, (9) unauthorized repair or the failure to utilize suitably qualified and trained persons to perform service and/or repair of the Product, (10) improper cleaning, (11) failure to follow installation, operating, cleaning or maintenance instructions, (12) use of "non-authorized" parts (i.e., parts that are not 100% compatible with the Product) which use voids the entire warranty, (13) Product parts in contact with water or the product dispensed which are adversely impacted by changes in liquid scale or chemical composition.

Contact Information:

To inquire about current revisions of this and other documentation or
for assistance with any Trade Fixtures product contact:

www.tradefixtures.com

800-872-3490

Trademarks and Copyrights:

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This document contains the original instructions for the unit described.

TRADE FIXTURES, LLC.

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Little Rock, AR Tel: +1 800-872-3490

Correct Disposal of this Product



RECYCLE

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Printed in U.S.A.

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IMPORTANT: THIS MANUAL IS A GUIDE FOR INSTALLING, OPERATING, AND MAINTAINING THIS EQUIPMENT. REFER TO TABLE OF CONTENTS FOR PAGE LOCATION OF DETAILED INFORMATION PERTAINING TO QUESTIONS THAT ARISE DURING INSTALLATION, OPERATION, SERVICE AND MAINTENANCE, OR TROUBLESHOOTING THIS EQUIPMENT.

SHOULD YOUR RHINO® Grind NUT BUTTER GRINDER EVER LOSE POWER, WE SUGGEST LOOKING AT BOTH THE POWER ON/OFF SWITCH AND FAQ'S IN THIS MANUAL TO TROUBLESHOOT BEFORE CONTACTING US.



The RHINO® Grind nut butter grinder is a free standing machine that takes nut meat, and grinds it into a coarse or fine spreadable paste for consumption by customers at retail.

Our RHINO® Grind nut butter grinder will be referred to within this OPERATING MANUAL as the RHINO, or RHINO® Grind. The use of terms such as unit, machine, or equipment are meant to be synonymous with the RHINO® Grind or its components.

Installation of the RHINO® Grind nut butter grinder must be on a flat surface, away from heat, and near a properly grounded, electrical receptacle for its safe operation.

HOW TO USE/SELL

Customers using the RHINO® Grind nut butter grinder will

select a container or cup to dispense nut butter into for purchase.

This process begins when the customer places the container or cup below the dispensing spout, and presses the start/stop button which will activate the motor and grinding plates. This action grinds the nut meat into a spreadable paste known as nut butter. Once the machine has delivered the desired amount of product, the consumer will release the start/stop button which will deactivate the motor causing the grinding plates and dispensing to stop.

Our RHINO® Grind nut butter grinder will dispense nut butter paste at a flow rate of 2.5Lbs/min. of peanuts. Different nut meat flow rates, and how to adjust settings can be found in this manual. Also, the RHINO® Grind nut butter grinder ships in the Fine texture setting, with instructions on how to change found within this manual if needed based on nut meat being ground.

Thank you for your interest in nut butter grinding, and your purchase of the TRADE FIXTURES RHINO® Grind!

SAFETY WARNING SIGNS

Read and Follow All Instructions

Read and follow all safety instructions, best practices, and precautions in this manual and on the RHINO® Grind nut butter grinder (decals and labels). Retain this manual for future reference.

Read and follow all applicable safety regulations before operating the RHINO® Grind.

SIGNS USED IN MANUAL AND ON FIXTURE

Please follow these warning signs to prevent injury to users and other persons.



Indicates that a danger of death or serious injury exists.



Indicates that a risk of personal injury or material damage exists.



Indicates that a risk of electrical shock exists. Only trained, licensed professionals should operate in areas where this warning exists.



Represents something you must NOT do.



Represents something you must follow.



Represents a ground is needed to prevent electrical shock.



It is recommended that this action be handled by a service person.



Disconnect Power to the Unit before Servicing or Cleaning.

Use a lockout/tagout procedure to ensure safety. Verify power is off to the unit before any work or cleaning is performed.



Do not plug several appliances into the same receptacle.

This could cause overheating and the risk of fire.



Make sure the power plug is not squashed, pinched, frayed or damaged and do not bend the power cord excessively or place heavy articles on it.

A damaged power plug may overheat and cause a fire. If the power cord is damaged, have it replaced immediately.



Do not insert the power plug with wet hands, or if cord/plug is wet.

You may receive an electric shock doing so.



Do not grind anything other than specified nut meat through this unit.

See a list of approved nut meats found on pages 8–9 of this manual.



Do not plug the RHINO® Grind in a power socket and/or circuit breaker with Ground Fault Circuit Interrupt (GFCI).

If you connect the power cord with GFCI socket and/or GFCI circuit breaker rated 6mA or less, the GFCI will fault/trip. **CAUTION - The RHINO® Grind will only work with an industrial GFCI rated 30mA or more.**



Do not disconnect the power cord by yanking on it.

Damage to the cord may cause a short-circuit, fire and/or electrical shock. If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons immediately in order to avoid a hazard.



Do not disassemble or repair the electrical components of this unit yourself.

You run the risk of causing a fire, malfunctions and/or personal injury.



The equipment must be grounded.

You must ground the unit to prevent any power leakage or electrical shock caused by current leakage. Improper use of the ground plug can result in a risk of electric shock. If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade round plug and a 3-slot receptacle that will accept the plug on the equipment. The marked rating of the extension cord should be AC 115V - 120V, 16A or more. If a grounding adapter is used, make sure the receptacle box is fully grounded.



Service warranty section

Any changes or modifications performed by a 3rd party on a finished product is not covered under Trade Fixtures warranty service.



Safety caution section

Trade Fixtures does not recommend 3rd party modification; therefore, Trade Fixtures is not responsible for safety issues that result from 3rd party modifications.



Safety Tips

Carefully read all safety messages in this manual and safety signs on equipment. Keep safety signs in good condition and replace missing or damaged safety signs. Learn how to operate the equipment and how to use the controls properly.



The unit must be service and maintained by appropriately trained personnel. Keep your RHINO® Grind in proper operating condition.

Do not allow unauthorized modifications to the equipment.

Do not let children or infirm persons operate the equipment without adult supervision.

Safety Precautions

NOTE: The RHINO® Grind is not designed for a wash-down environment and MUST NOT be placed in an area where a water jet could be used.

It is recommended that you do NOT grind two consecutive times without a 30 second rest, or you run the risk of overheating the RHINO® Grind.



Technicians

CAUTION - Only trained and certified electrical personnel should service this equipment. ALL WIRING MUST CONFORM TO NATIONAL AND LOCAL CODES.



Shipping and Storage

CAUTION - RHINO® Grind nut butter grinder must remain upright to avoid damage, or injury. Always ship, carry, store, and handle the RHINO® Grind nut butter grinder in an upright position to prevent improper installation and/or tip over.



Proper Lifting Procedures

When placing the RHINO® Grind for the first time, you will be required to lift and set approximately 70+ lbs at the location of your choosing. The initial fill, and subsequent refills of the nut hopper will weigh 20lbs. Where possible, we recommend using a team approach (2x).

Always use good posture (keeping your back straight and bending your knees, not your back) to lift. NEVER stand on a step stool, or ladder and reach beyond your arms length to place the refilled hopper back onto the RHINO® Grind nut butter grinder body. NEVER let the hopper drop into place. It must be set gently to avoid damage to the RHINO® Grind nut butter grinder body.

STOPPING THE RHINO® Grind



INTERRUPTING/SHUTTING OFF POWER

In the event of motor malfunction, electrical outage, surge, or any other unusual situation where you want to immediately shut off power to the RHINO® Grind:

- 1) Locate Main On/Off power switch and move to the OFF position.
- 2) Remove the power cord from the main socket at the wall.



RESUMING NORMAL OPERATION

Once the issue has been removed and corrected, the power is ready to be restored:

- 1) Plug power cord into the main socket.
- 2) Switch the Main On/Off power switch to the ON position.
- 3) Press the activation (start/stop) button on green illumination till the grinder start dispensing the butter.

ANTI TIP SAFETY BRACKET



The RHINO® Grind should be operated on a sturdy level countertop, table or surface capable of supporting 100lbs per completely full unit. The anti-tip device below should be secured to a wooden surface with the provided Philip head wood screws (Fig. 1), or to granite, or metal worksurfaces using the machine screws and nuts (provided but not shown). Slide the RHINO® Grind into place and onto the anti-tip device which will secure it in place (Fig. 2).

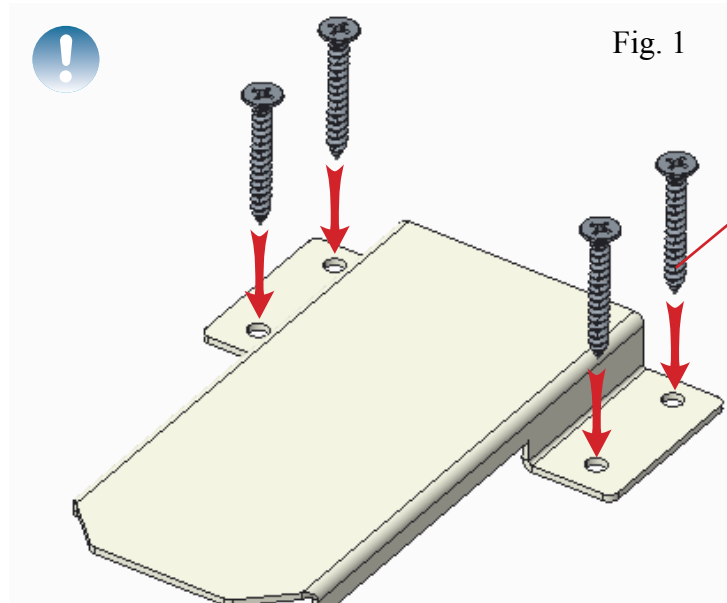


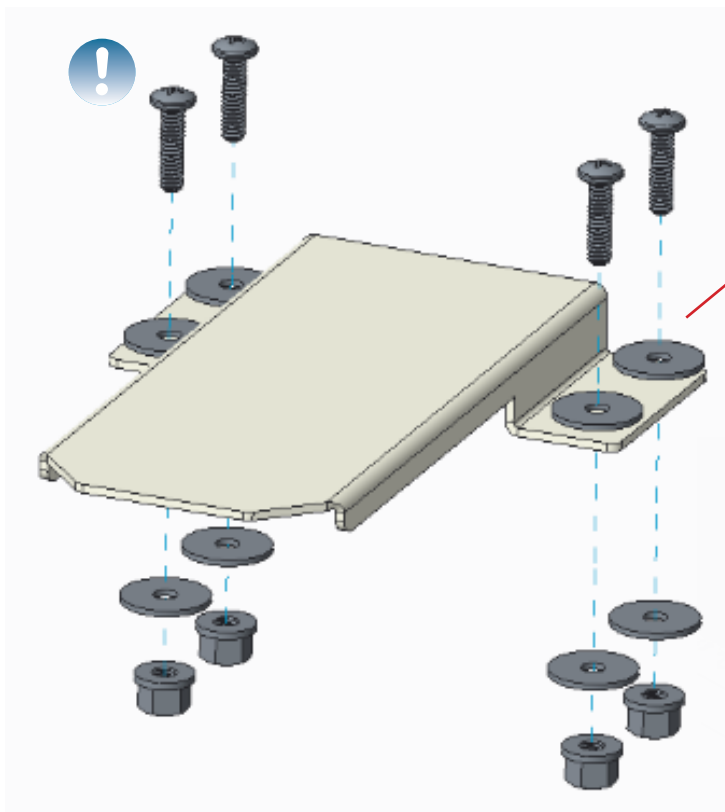
Fig. 1

secure anti-tip device to a level, sturdy wooden countertop using provided wood screws ...

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... or any other worksurface (steel, metal, or non-wood) using machine screws, nuts, and washers for a secure, snug installation

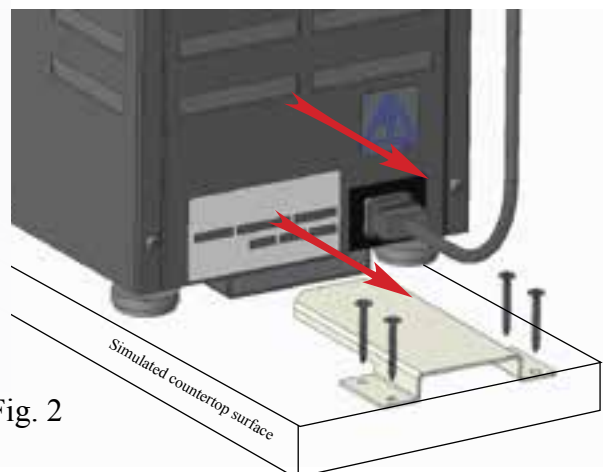


Fig. 2

General Description

This section gives the unit design data and electronic safety feature of the RHINO® Grind nut butter grinder.

DESIGN DATA & ELECTRICAL REQUIREMENTS

RHINO® Grind nut butter grinder Style (Model #):

621058631 - Nut Butter Grinder-Stainless Steel (NG2000)	115V/60Hz
621058738 - Nut Butter Grinder-Stainless Steel (NG2004)	220V/60Hz
European model (NG2001)	230V/50Hz

Ambient Operating Temperature 60°F / 15.6C to 72°F / 22.2C

Note: Nut Butter is best dispensed from a 72° ambient room temperature.

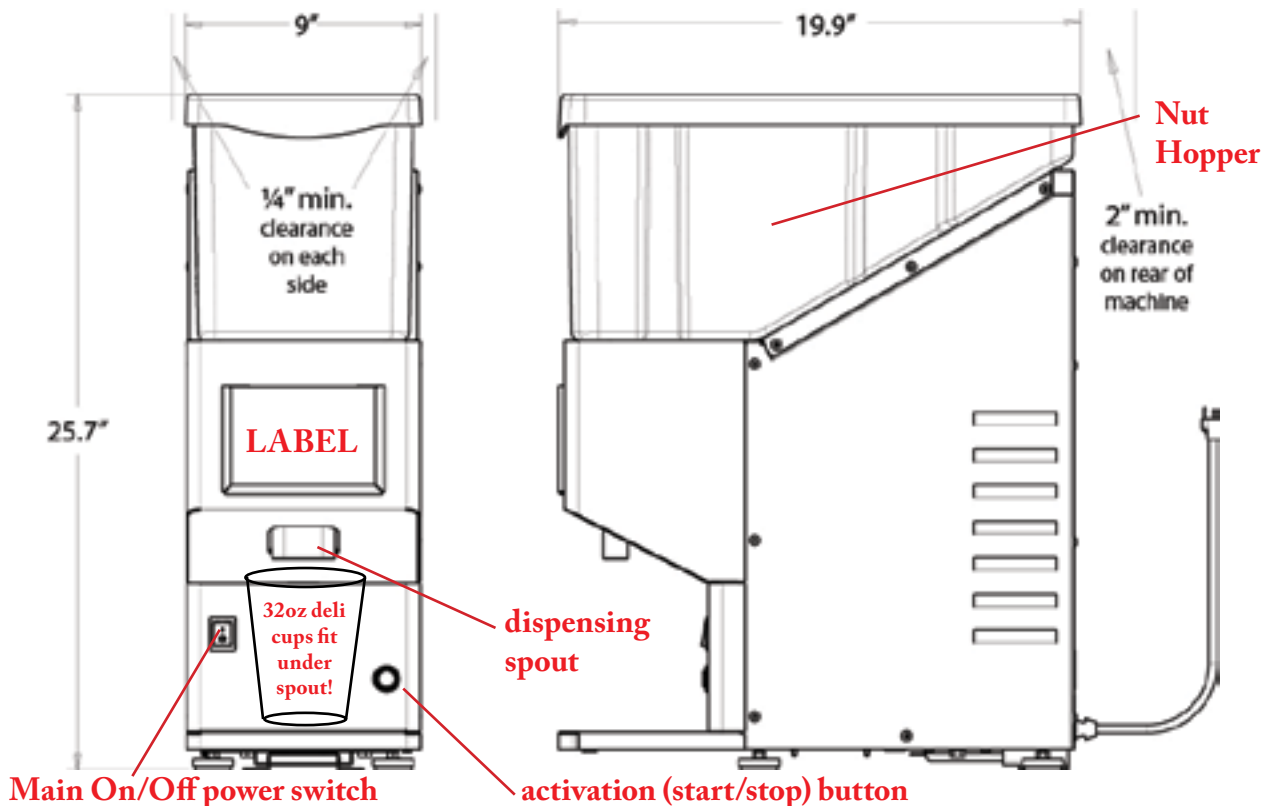
Electrical Requirements

Operating Voltage (U.S.)	110-120 VAC, 60 Hz
Current Draw (U.S.)	12.0A U.S. / 7.5A

We recommend a 20A dedicated circuit and breaker with standard 3 prong ground per RHINO® Grind machine. Typical current draw is 7A.

DIMENSIONS OF RHINO® Grind

The RHINO® Grind measures as follows:



SPECS AND FEATURES

MOTOR INTERRUPTING SAFETY SWITCHES

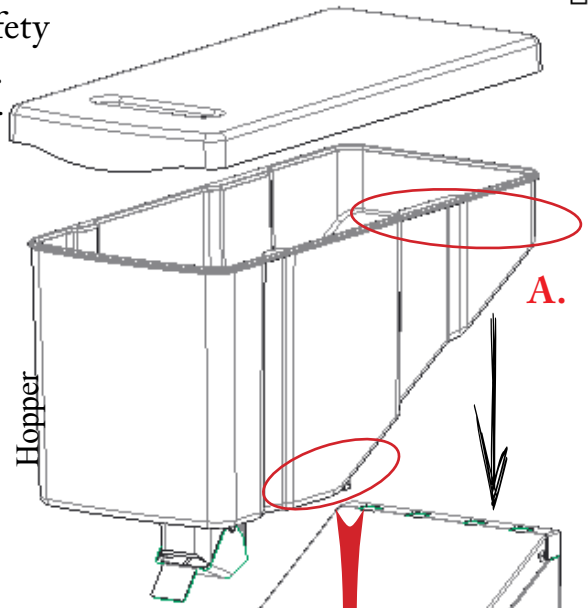
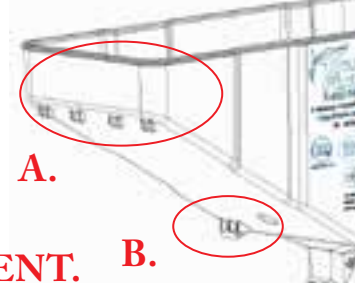
The RHINO® Grind is equipped with 2 safety switches to prevent injury during refill or cleaning.

1.) When the hopper or 2.) the front merchandiser has been removed for cleaning, or is not properly installed, the power to the RHINO®

Grind's motor is interrupted.

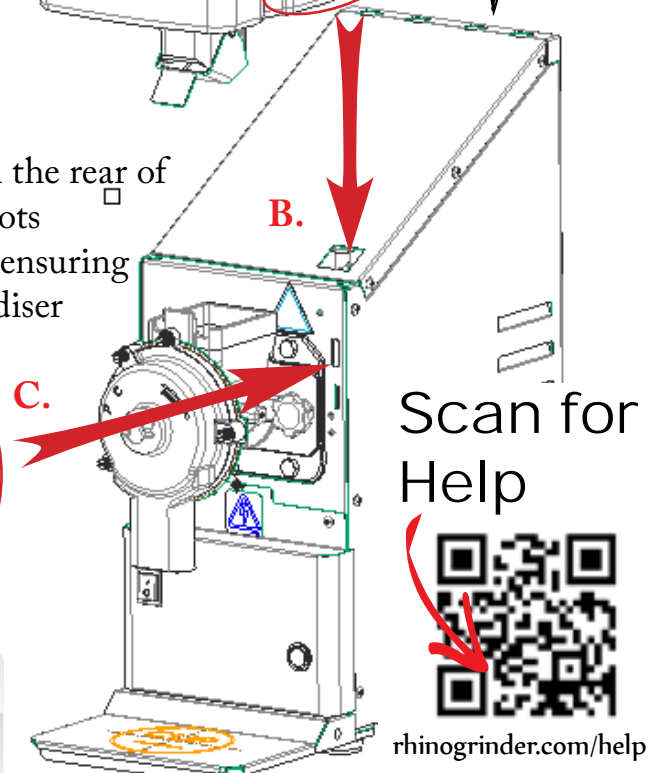
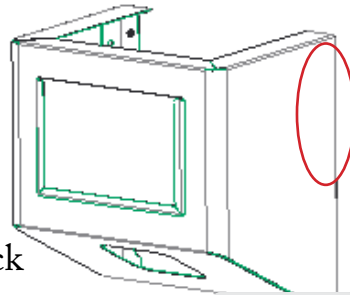
IT DOES NOT MEAN THAT POWER TO THE MACHINE IS ABSENT. PLEASE PROCEED WITH CAUTION!

Reverse Detail of Hopper



A. Align the 4 tabs in the back of the hopper with the rear of the RHINO® Grind. B. Tabs should rest in the slots on the grinder body. C. Align front merchandiser ensuring the tabs align with no gap. Assure front merchandiser fully seats to chassis.

The RHINO® Grind should start when the start/stop button is pushed. If the button is flashing red/yellow, check for proper installation / alignment at locations shown in A., B. and C. and review Troubleshooting section.

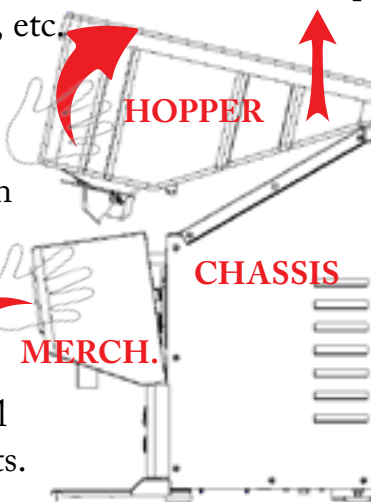


REMOVING THE HOPPER, OR FRONT MERCHANDISER

This shows how to remove and reinstall the hopper, or front merchandiser for cleaning, maintenance, etc.

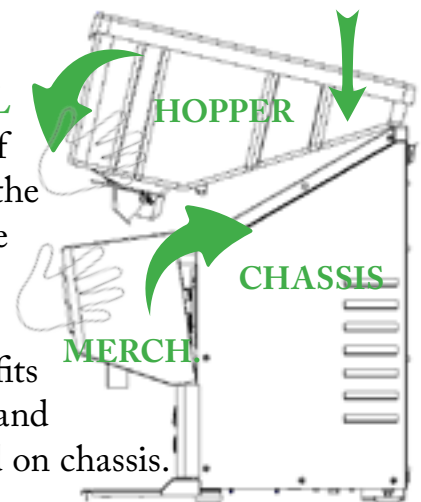
REMOVAL

The hopper simply rotates up until you can lift it straight up from the RHINO® Grind chassis. The merchandiser may require a firm pull to release from magnets.



REINSTALL

Align 4 tabs of the hopper at the rear, and rotate it back into position. The merchandiser fits into two slots and rotates upward on chassis.



PRODUCT LABEL

There is a product label holder on the front of the RHINO® Grind which measures 6” wide by 4” tall. The visible area measures 5.5” by 3.75” tall. Slide the product label into the channel.

We also have two other options available. For those using the standard 4” by 3.75” labels from Trade Labels, we have an insert like shown here which is included in your packaging for use. The insert hides the weld marks. Whether you use it or not is up to you. We also have a 6” wide by 4” tall generic label that we can send you, or you can make your own.



Getting Started/Quick Start

UNPACKAGING AND INSTALLATION

Remove RHINO® Grind from packaging, and inspect for any damage that may have occurred in shipping. If you observe any damage, email us immediately at service@tradefixtures.com, otherwise install the Anti Tip device for attaching securely to a flat shelf, then level the RHINO® Grind and slide onto the anti-tip device with a minimum clearance of 1/4" on each side, 2" at the rear and 5" minimum at the top of the unit. Locate the power socket and plug the RHINO® Grind into a grounded receptacle. Do not plug several appliances into the same receptacle. Each RHINO® Grind should be on a dedicated circuit, based on the design data.

LOAD NUT HOPPER



Lift the lid on hopper and fill with nut meat. Replace lid.

PRIMING THE RHINO GRIND

The RHINO® Grind was lubricated, sealed, and test run at our plant. No further maintenance is required other than regular, cleaning of the unit. (For more information, see cleaning/sanitizing section of this manual).

PRODUCT LISTING



DO NOT GRIND ANY NUTS WHICH ARE STILL IN THEIR SHELL.

Dry roasted nuts work best for producing a spreadable butter. Raw, unroasted nuts or those with low oil content are not recommended to grind in the RHINO® Grind, as they may produce a thick, coarse nut butter meal paste or not produce nut butter at all. Almonds, specifically, need to be dry-roasted with a very low moisture content. Products like sesame or flax seeds, or any not listed below are not grindable or don't produce favorable results when attempted.

The following nuts are great choices for selling as nut butter:

Peanuts, honey roasted peanuts, almonds, cashews, pecans, macadamia nuts, hazelnuts, walnut pieces, pistachios, roasted sunflower seeds, pumpkin seeds, or any addition of chocolate pieces (which should be limited to 25% of hopper volume). The RHINO® Grind was developed to grind whole nut and pieces, do not hesitate to grind up whole nuts. Due to the all natural, no preservative nature of freshly ground nut butters, we recommend refrigerating product after it is ground. Refer to Page 9.

Some nut grades will pose difficulties, while other grades of the same nut type will not. If you are having difficulty with processing specific grades of nuts, please contact service for assistance. We cannot guarantee every nut grade processing performance but have had positive results (see chart next page).

Getting Started/Quick Start

Great choices for selling as Nut Butter

The Rhino Grind unit was developed to grind whole nuts and pieces, do not hesitate to grind up whole nuts!

Type of Nut/Seed	Whole	Halves	Chopped/Pieces
Almonds - Whole (Dry Roasted)	✓	N/A	N/A
Peanuts (Dry Roasted)	✓	✓	✓
Honey Roasted Peanuts	✓	✓	✓
Almonds - Diced (Dry Roasted)	N/A	N/A	✓*
Cashews** (Dry Roasted)	✓	✓	✓
Filberts/Hazelnuts (Dry Roasted)	✗	✓	✓
Pecans	✗	✗	✓
Walnuts	✗	✗	✓
Macadamia Nuts (Dry Roasted)	✗	✗	✓

*- Diced 12/8 will not work as they are too fine.

** - Any grade between BB and SW210 should work.

NOTES:

Dry roasted nuts work best for producing a spreadable butter. Raw, unroasted nuts or those with low oil content are not recommended to grind in the Rhino Grind unit, as they may product a thick coarse nut butter meal paste or not produce nut butter at all. Some customers have found removing the duckbill to grind raw nuts is best.


Chocolate and Butterscotch Chips can be added, but should be limited to 25% of the total volume and no larger than a 10mm size.

Do NOT grind any nuts which are still in their shell.

Almonds, specifically, need to be dry-roasted with a very low moisture content. Products like sesame or flax seeds, or any not listed above are not grindable or don't produce favorable results when attempted.

Oil roasted nuts can be ground on the 'coarse' setting with the duckbill installed for a very smooth nut butter result.

PLEASE NOTE:

 Before your first use, or after the cleaning/sanitizing/drying process, you will need to run a cup of nuts through the grinding process until a sellable buttery nut paste begins to grind. Running the RHINO® Grind on Fine texture minimizes the nut powder/dust dispense you may see, or particles until the paste forms. Discard this cup, and you are now ready to sell fresh nut butter!

Cleaning and Sanitizing Procedures

FOREWORD ON CLEANING

These cleaning procedures are based on the rules and regulations of the U.S. Food and Drug Administration’s (FDA) Food Code (latest edition, 2013), and the Arkansas Department of Health, Food Protection Services division. The Food Code is a model for safeguarding public health and ensuring food is unadulterated and honestly presented when offered to the consumer. It represents the FDA’s best advice for a uniform system of provisions that addresses the safety and protection of food offered at retail and in food service.

This model is offered for adoption by local, state, and federal governmental jurisdictions for administration by the various departments, agencies, bureaus, divisions, and other units within each jurisdiction that have been delegated compliance responsibilities for food service, retail food stores, or food vending operations. Alternatives that offer an equivalent level of public health protection to ensure that food at retail and foodservice is safe are recognized in this model.

These instructions are to be considered the best case for ensuring a perfectly clean RHINO® Grind nut butter grinder. Any deviation from these instructions in whole, or in part, would be at your discretion which could lessen your retailing experience. If you are unsure, please check with your local or state Health Department (Food Safety Division).

NSF CERTIFICATION

Trade Fixtures / New Leaf Designs has received NSF Certification. NSF for sanitation and food safety (NSF-8)




UL CERTIFICATION

Trade Fixtures / New Leaf Designs has received UL (Underwriters Laboratory) Certification. UL for electrical and flammability safety (UL 763 and CAN/CSA C22.2 No. 195)




RECOMMENDED CLEANING SCHEDULE

 The RHINO® Grind is easily cleaned by hand. Avoid using commercial dishwashers, or detergents which may deteriorate the aluminum components.

Keeping the RHINO® Grind clean will ensure many years of operation, build consumer confidence, and offer a fresh, healthy option for your customers.

We recommend daily cleaning of the RHINO® Grind food contact components such as auger, grinding plates, cover, housing, duckbill valve, nut hopper, internal component and shutter. It is important that all precautions be taken to prevent cross contamination of product, and prevent any potential cleanliness issues.

DAILY CLEANING (EXTERIOR COMPONENTS)

 For the RHINO® Grind to maximize sales and attract customers, it is important to maintain a clean area.

On a daily basis, the exterior cabinet should be wiped down to remove any food trace, clean any spillage which may have accumulated, reset your nut hopper bin, and remove any trash.

Occasionally throughout the day, the use of warm water and a disposable towel will help remove any nut butter deposits from the dispensing spout, food contact surface area or catch tray. Make sure to dry all parts thoroughly before placing the RHINO® Grind back in service.

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Catch tray can be removed, and cleaned by pulling out and away from RHINO® Grind chassis.

FOOD CONTACT CLEANING (INTERIOR COMPONENTS)

 The following pages provide detailed instruction on how to clean the RHINO® Grind's internal components. Instructions are provided in this manual for cleaning.

WE RECOMMEND YOU USE THESE INSTRUCTIONS TO CLEAN THE NUT BUTTER GRINDER EVERY TIME YOU REPLACE OR REFILL THE NUT HOPPER. CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS.

Disassembly / Reassembly



SAFETY PRECAUTION FOR UNIT CLEANING

1. Switch off the RHINO® Grind at Main On/Off power switch.
2. Disconnect the power cord from the power source.
3. Remove, or dispose of the nut hopper contents depending on their age.
4. Disassemble as per instructions given below.

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For any issues you may encounter with the RHINO® Grind nut butter grinder, we recommend you take the following course of action:

- Review this instruction manual
- Check the Electronic Stop / Power Supply
- Call us at 1-800-872-3490, or email service@tradefixtures.com



Remove hopper from equipment



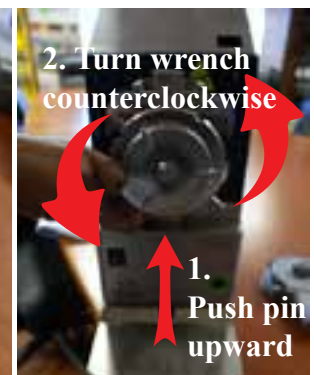
Pull to remove front merchandiser



Unscrew the locking captive screw on top



Rotate Cover clockwise to unlock
Pull out once aligned with slots.



The use of this supplied wrench may be required to break loose the grinding wheel in the next step. Press and hold augur lock pin and turn the wrench counter clockwise. **PLEASE NOTE:** Do not use this tool to tighten the grinding wheel during reassembly.

WE RECOMMEND YOU HAND WASH ALL COMPONENTS AND AVOID USING DISHWASHERS OR DETERGENTS WHICH MAY DEGRADE THE PARTS.

CLEANING/SANITIZING

Disassembly / Reassembly

CLEANING/SANITIZING



Press/Hold Auger lock pin. Rotate Grinding Wheel counterclockwise.



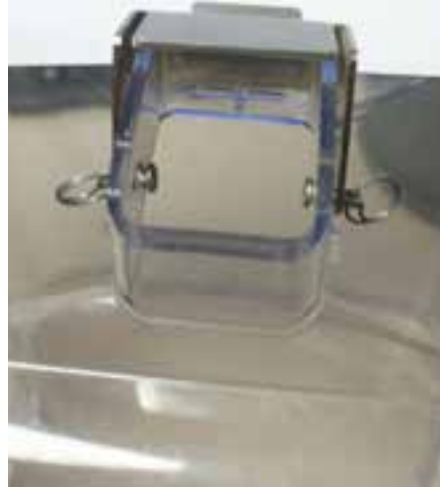
Remove thumbscrews from housing. Place on catch tray brkt.



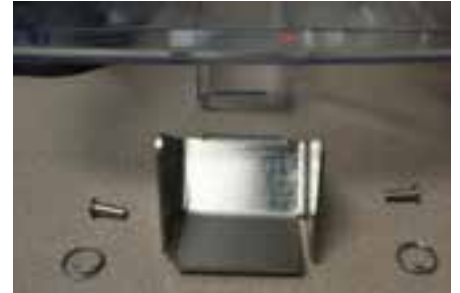
Remove housing from the auger assembly



Wipe the auger, rotary seal and housing mounting plate thoroughly using a dry cloth



Empty the hopper bin & remove the shutter by pulling the cotter rings and clevis pins



Wipe thoroughly internal and external surfaces of the hopper, shutter and pins using a dry cloth



Unscrew 3 captive screws, and separate the retaining ring from cover for cleaning. When reinstalling these pieces, make sure the raised weld nuts do not rest against the cover when hand tightening the retaining ring and 3 thumb screws. Failure to do so, may result in leaking.



Unscrew the two thumb screws which hold the grinding plate on the auger housing and remove for cleaning. Take notice of the alignment notch which needs to be located in the range as shown by the red circle during the reinstallation process.



CAUTION: THE GRINDING PLATE MAY HAVE SHARP BURRS, EDGES OR TEETH. PROCEED WITH CAUTION AND CARE.

CLEANING OF PRODUCT DELIVERY PARTS

1. Remove Grinding Housing Cover, and pull the duck bill valve out.
2. Soak the parts in warm water for several minutes, then brush or otherwise remove nut butter from all parts.
3. Brush wash all components with soapy water. Rinse thoroughly in clean, warm water.
4. In a clean sink, prepare a sanitizing solution of KAY-5® Sanitizer/Cleaner, or comparable sanitizer/cleaner by dissolving 1 packet in 2½ gallons (9.5 liters) of lukewarm water. Immerse the part for 1–2 minutes. Remove and drain. **DO NOT RINSE.** Visually inspect ALL parts and surfaces are free of residue, nut butter paste, particles, soaps, etc. If not, repeat steps 1-4.
5. Air dry all parts thoroughly & make certain that surfaces are free of moisture. Reassemble the parts to the unit.
6. After reassembling, reconnect cord to power source & test the unit by running it briefly before adding nuts into the hopper.



A pictorial view of cleaning with a brush:



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REASSEMBLY

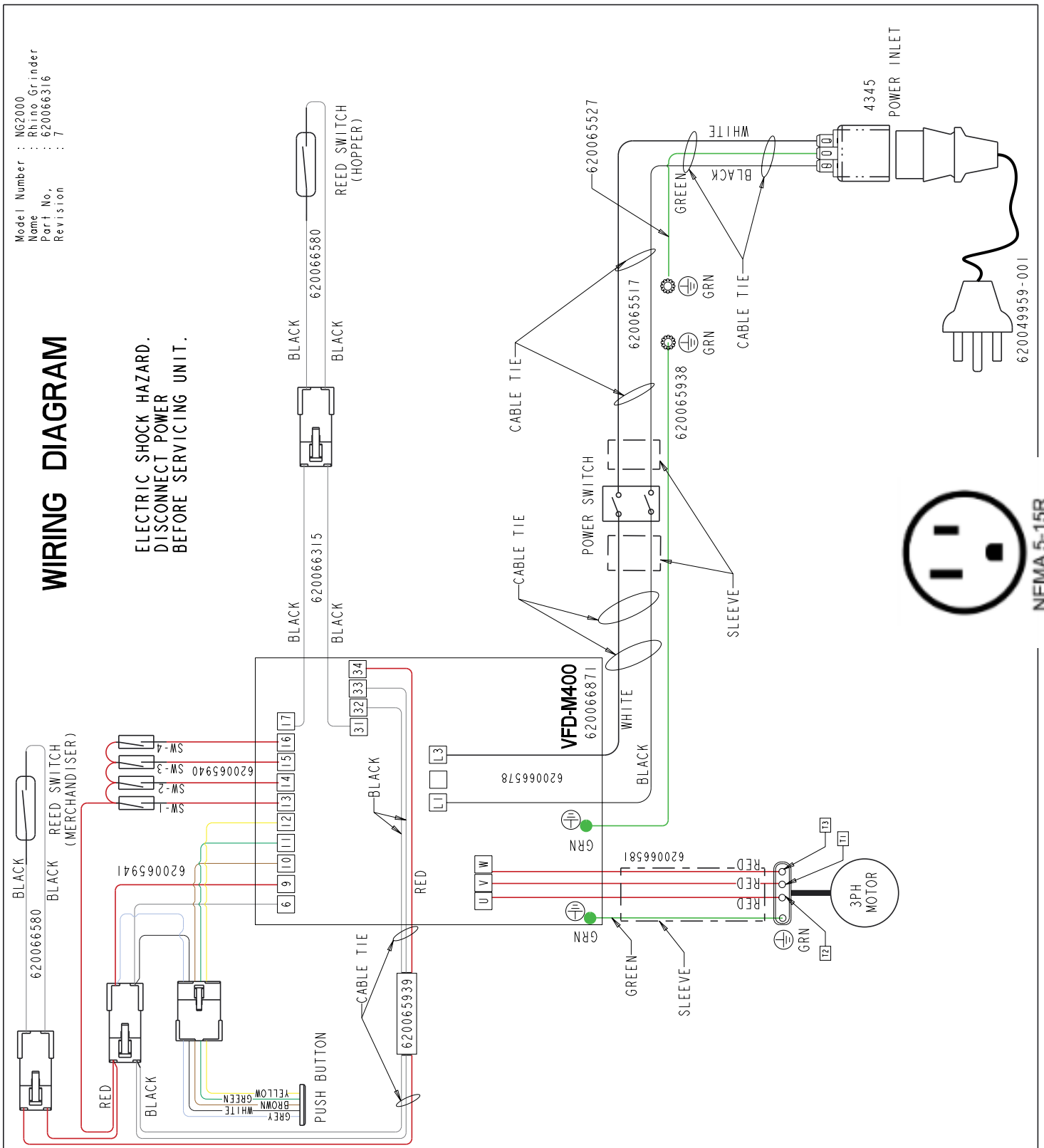
1. Reassemble by reversing the instructions.
2. Ensure the nut hopper is properly installed.
3. Fill the nut hopper with nut meat.
4. Connect cord to power source.
5. Switch on the RHINO® Grind.
6. If activation button does not activate, please refer to page 18 Troubleshooting.

Wiring Schematic / U.S. Model 115V/60Hz

Model Number : NG2000
 Name : Rhino Grinder
 Part No. : 620066316
 Revision : 7

WIRING DIAGRAM

ELECTRIC SHOCK HAZARD.
 DISCONNECT POWER
 BEFORE SERVICING UNIT.



NEMA 5-15R

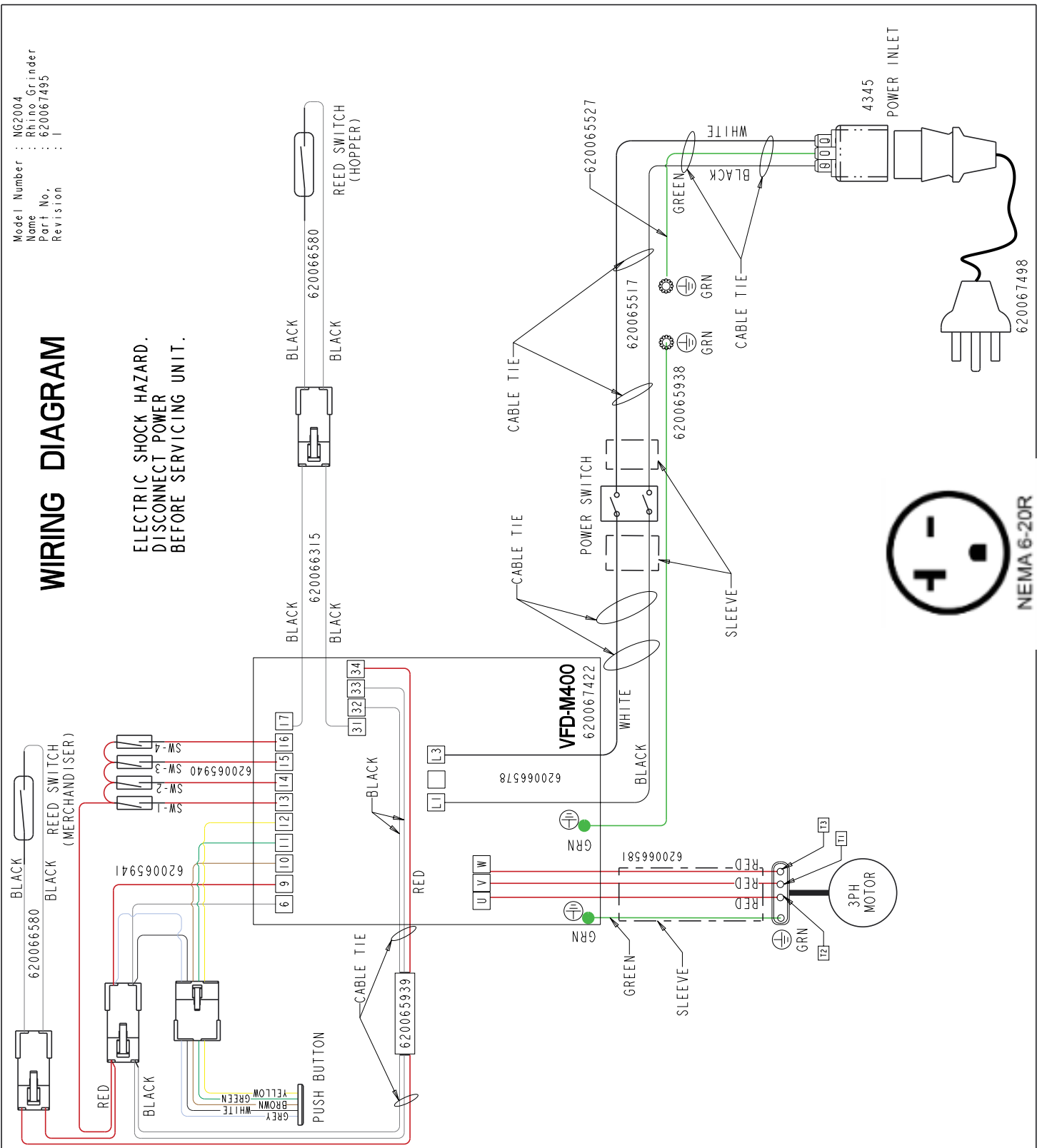
620049959-001

Wiring Schematic / U.S. Model 220V/60Hz

Model Number : NG2004
 Name : Rhino Grinder
 Part No. : 620067495
 Revision : 1

WIRING DIAGRAM

ELECTRIC SHOCK HAZARD.
 DISCONNECT POWER
 BEFORE SERVICING UNIT.



NEMA 6-20R

RHINO® Grind

ILLUSTRATED PARTS LIST: GRINDING ASSY.

Item #	Part #	Description	Qty.
1	620067502	Cup Rest	1
2	620067725	Catch Tray Bracket	1
3	620066587	Thumb Screw (for Texture Adj.)	2
4	620068579	Button w/Harness	1
5	620056611	Levelling Legs	4
6	00857	Body Set Screw (8-32)	10
7	620049959-001	Power Cord 120V/60Hz	1
	620067498	Power Cord 220V/60Hz	1
	620049959-003	Power Cord 230V/50Hz	1
8	620065522	Merchandiser Assembly	1
9	620064513	Duckbill Valve	1
10	620068892	Screw Knurled Head (for Cover)	4
11	620066585	Retainer Plate	1
12	620065468	Rotating Grinding Plate, Front	1
13	620066583	Fixed Grinding Plate, Rear	1
14	620066885	Thumb Screw (for Housing)	2
15	620065943	Housing Grinder	1
16	620066867	Lockpin Assembly Kit	1
17	620065480	Hopper Shutter	1
18	620065507	Hopper Shutter Bolt	1
19	620068874	Hopper Cotter Pin	1
20	620065216	Hopper Bin Body	1
21	620064511	Hopper Lid	1

TRADE FIXTURES RHINO™ GRIND NUT BUTTER GRINDER

Troubleshooting Tips



ONLY TRAINED/QUALIFIED TECHNICIANS SHOULD SERVICE UNIT.

- Check power plug to make sure it is properly connected.
- Check the Main On/Off Power Switch has not been activated.
- Check the motor interrupting safety switch locations to ensure no gap.
- Check the power circuit to make sure it has not tripped the breaker at your store.
- If you have power, but the unit will not work, the RHINO® Grind nut butter grinder has any of the following...

ERROR INDICATION START/STOP PUSH BUTTON

Flash Red Indicator at 2 second on, 2 second off rate

- Bin Hopper is not placed properly
Remove bin and clean the bin switches and switch on equipment

Flash Yellow Indicator at 2 second on, 2 second off rate

- Front Merchandiser is not placed properly,
Remove front merchandiser. Clean the safety switch&switch on equipment

Flash Yellow Indicator at 1 second on, 1 second Red on, and 1 off rate

- Front Merchandiser and Bin Hopper are not placed properly,

Flash Green and Red Indicator at 0.5 second alternating

- Motor Overload Protection is tripped
Remove bin and check whether any foreign material or nut is clogged in housing. Check auger locking pin is free and spring is intact by pulling pin

Flash Yellow Indicator at 1second on, 1 second off

- Push button key is stuck
Press and release to free the push button

Flash Yellow Indicator at 3second on, 1 second off - Invalid Timer, see page 22.

STOP



INTERRUPTING/SHUTTING OFF POWER

In the event of motor malfunction, electrical outage, surge, or any other unusual situation where you want to immediately shut off power to the RHINO® Grind:

- 1) Locate the Main On/Off power switch and move to the OFF position.
- 2) Remove the power cord from the main socket at the wall.

RESUMING NORMAL OPERATION

Once you have removed and corrected the issue which caused you to interrupt/shutoff the power to the RHINO® Grind, and power is ready to be restored:

- 1) Plug power cord into the main socket.
- 2) Switch the Main On/Off power switch to the ON position.
- 3) Press the activation (start/stop) button on green illumination.

Troubleshooting Tips

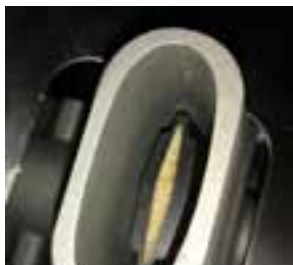


START UP DRY PRODUCT / NOZZLE CLOGGING

At startup, some products produce a dry residual that clogs the duckbill valve. The result is that product does not flow.

Potential solutions: (Each step is progressive. Check for product flow after each step)

1. Assure the grinder is set on fine.
2. Clean the duckbill opening from below with a plastic knife. Insert the plastic knife inside the duckbill valve. Articulate the knife in a rotary motion to loosen / dislodge the compacted product.
3. Take cover off of unit & push compacted product out of the duckbill valve & squeeze the duckbill valve to open it (May have to take the duckbill out of housing to perform the squeeze open operation)
4. Visually inspect the sealing area of cover and fixed grinding plate are free of nut butter debris prior to reinstalling of cover.



View looking up from underneath dispensing spout



2) Cleaning duckbill from below



3) Cleaning duckbill from above

LOW VISCOSITY/WATERY PRODUCT LEAKAGE

Certain products have high oil / water content resulting in a thin nut butter paste. The thin nut butter paste may syphon product out of the cover leaving a “puddle of paste” after the consumer has left.

Potential solutions:

1. Locate a whole nut or another diced product with less oil/water that delivers a thicker consistency (Product suggestions are available in our “nut educational” material)
2. Place the grind setting to “coarse”

Troubleshooting Tips



3. Contact Trade Fixtures for specific components that will grind the product in a higher viscosity paste
 - Special Duckbill valve (see photo below)

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DUCKBILL VALVE

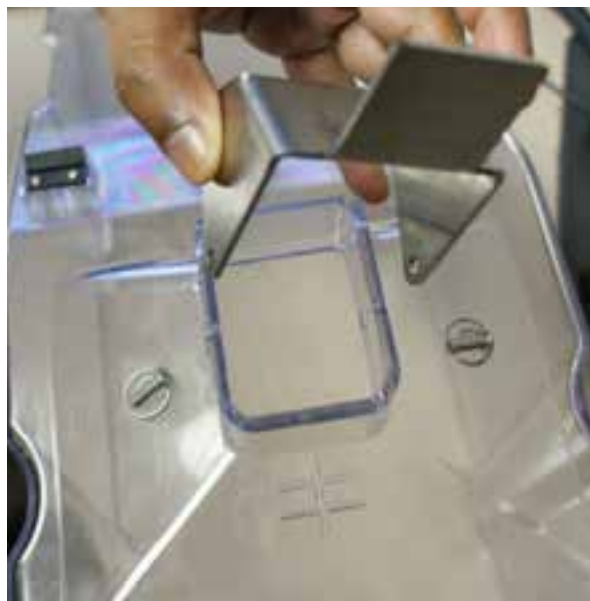
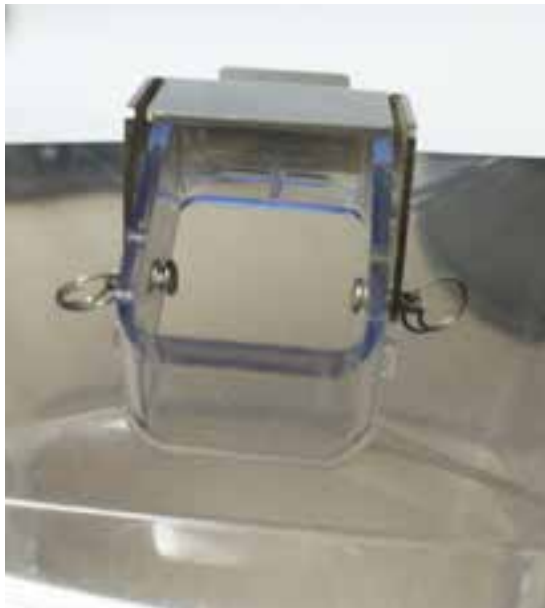


PRODUCT BRIDGING, OR NOT ENTERING THE GRINDER

Certain products have size and exterior surface features that allow the product to “bridge” across the opening of the plastic hopper. When this happens, the grinder mechanism runs dry and no product is dispensed from the machine.

Potential solutions:

1. Smaller product size typically flows better in the system.
2. Removal of the stainless steel shutter will promote improved product flow. This can be performed by removing the cotter ring and pin allowing the removal of the shutter. (see illustration below). **PLEASE NOTE: Once you have removed this shutter, the product will free flow once you pick up the hopper from the body of the grinder spilling your nut meat all over the floor or countertop.**
3. Contact Trade Fixtures for a special hopper insert which helps improve flow rate.

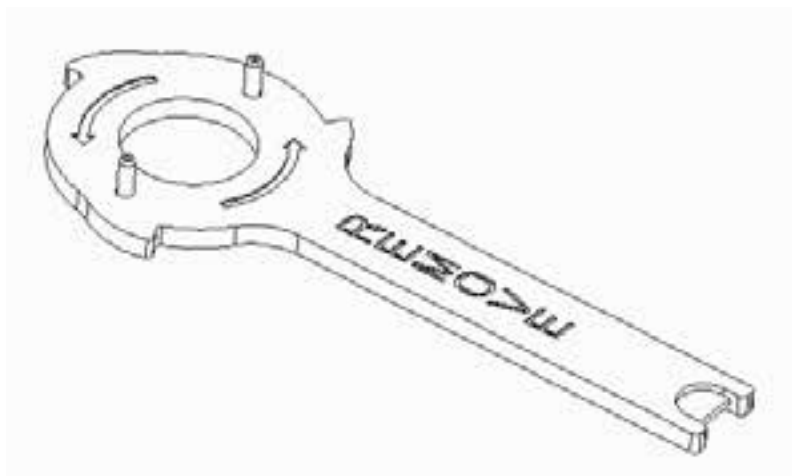


Troubleshooting Tips



HAVE A TIGHT COVER?

1. Loosen the anti rotation screw.
2. Loosen the three retainer ring thumb screws a quarter turn counterclockwise.
3. Rotate cover clockwise to remove.
4. Clean parts, ensuring seal and all grinding plates are free of debris/food particles.
5. Reinstall cover and rotate counterclockwise to align the anti rotation screw to its original position as shown in step 1.
6. Tighten the three retaining ring thumb screws a quarter turn clockwise.
7. Hand tighten the anti rotation screw.
8. Store the tool/wrench on the rear of the RHINO Grind.



The provided wrench features a screw driver on one end AND wrench for removing or breaking loose the outer grinding plate.

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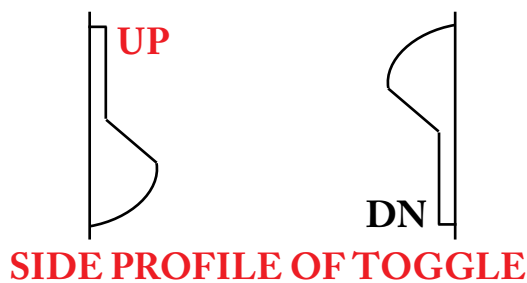
Setting the Timer



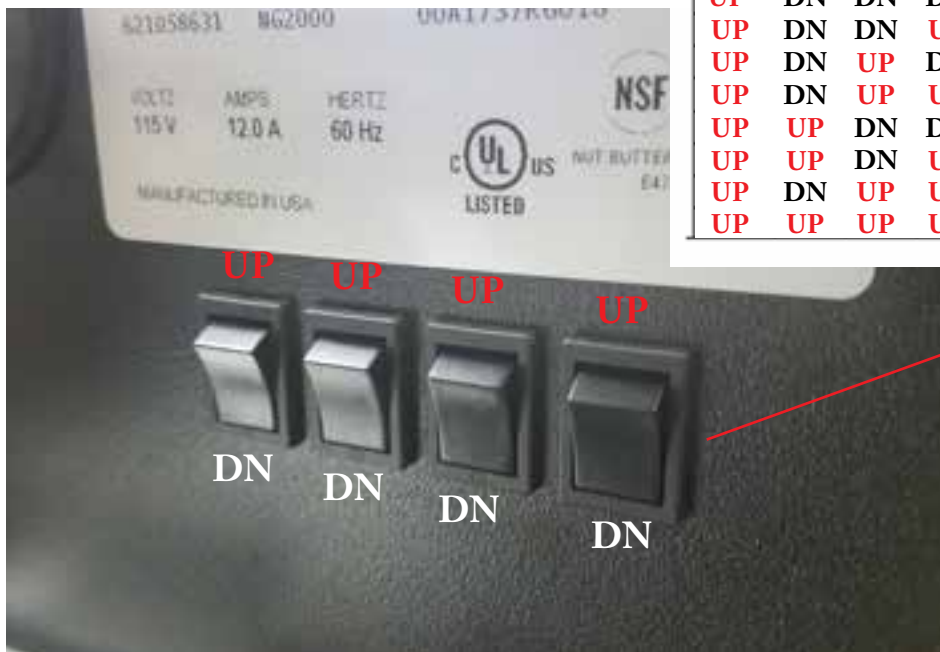
By default, the RHINO® Grind ships without the timer function set, which means you have to press and hold the Start/Stop push button to run the unit. If you prefer this operation mode, there is nothing further to do. Simply plug in the RHINO® Grind and begin using it. However, if you desire to configure your Start/Stop push button for a predetermined amount of time, you need to access the toggle switch bank and set the black toggle switches according to the table below. These switches are for setting the start/stop push button timing feature.

HOW TO LOCATE TOGGLE SWITCHES: REMOVE THE POWER CORD FROM THE SOCKET BEFORE YOU BEGIN.

Remove Front Merchandiser. Remove Catch Tray. Locate the stainless steel access panel with the OFF/ON and power activation buttons. Remove three screws (two at the top of the panel and one underneath the machine.) Remove panel. You should now see the toggle switch bank.



SW1	SW2	SW3	SW4	Time
DN	DN	DN	DN	Push and Hold Function
DN	DN	DN	UP	1 second
DN	DN	UP	DN	15
DN	DN	UP	UP	30
DN	UP	DN	DN	45
DN	UP	DN	UP	60
DN	UP	UP	DN	75
DN	UP	UP	UP	90
UP	DN	DN	DN	105
UP	DN	DN	UP	120
UP	DN	UP	DN	135
UP	DN	UP	UP	150
UP	UP	DN	DN	165
UP	UP	DN	UP	180
UP	DN	UP	UP	Not Used (Learned Run)
UP	UP	UP	UP	Not Used (Learning Mode)



FRONT OF RHINO® Grind WITH MERCHANDISER AND PANEL REMOVED.

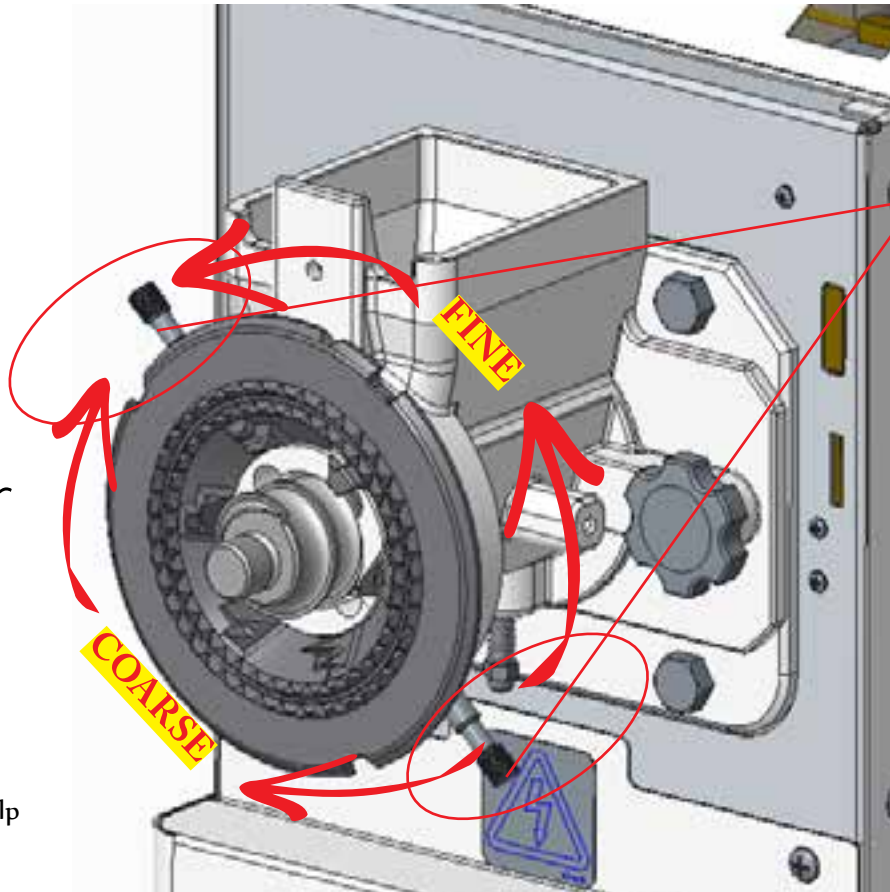
Setting the Grind Texture

By default, the RHINO® Grind ships with the nut butter texture set to Fine. If you want to change the dispense from Fine (Smooth), to Coarse product, simply unscrew the adjustment thumbscrews (x2), rotate the grinding plate, and screw the adjustment thumbscrews back down manually. **It is not recommended that you adjust from Coarse to Fine without cleaning your machine.** A step by step is featured on the next page.

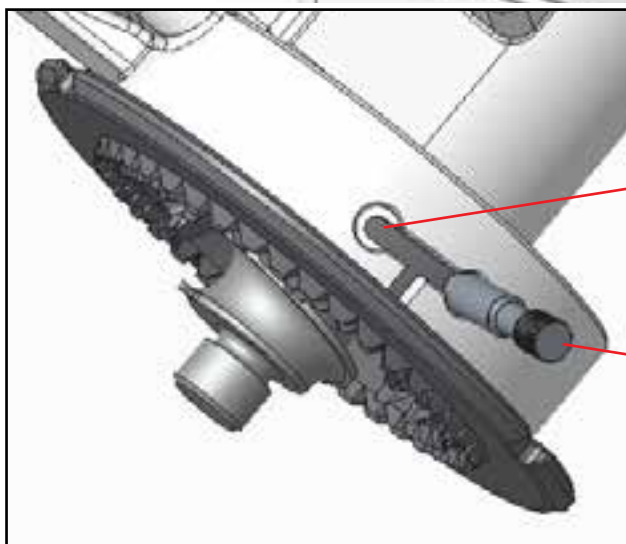
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UNSCREW AND ROTATE CLOCKWISE TO SWITCH FROM FINE TO COARSE GRIND



TEXTURE ADJUSTMENT SLOT (x2)

ADJUSTMENT THUMBSCREW (x2)

Setting the Grind Texture



STEPS TO ADJUST FROM FINE TO COARSE

1. Remove the Front Merchandiser.
2. Loosen anti rotation screw on the grinding cover.
3. Loosen the texture adjustment screw. Do this (x2).
4. Rotate the cover and grinding plate clockwise.
5. Hand tighten the texture adjustment screw. Do this (x2).
6. Rotate the cover counterclockwise until the dispensing spout is vertical.
7. Hand tighten the anti rotation screw.
8. Replace the Front Merchandiser and check the illuminated light activation button to ensure a non-flashing green state.

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Pull to remove front metal merchandiser



Step 2



Loosen anti rotational screw until it is as shown here.



Step 3



Step 5



Step 6



Step 7

WE DO NOT RECOMMEND ADJUSTING THE TEXTURE FROM COARSE TO FINE WITHOUT CLEANING YOUR MACHINE. FAILURE TO DO SO, MAY LEAD TO PART DAMAGE.

Warranty Information

Trade Fixtures / New Leaf Designs LLC (Trade Fixtures) warrants this equipment manufactured by it as follows:

One (1) year parts

These warranty periods run from the date of installation. Trade Fixtures warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by Trade Fixtures or that, in Trade Fixtures' judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair or resulted in damage or casualty. This warranty is conditioned on the original Buyer: 1) giving Trade Fixtures prompt notice of any claim to be made under this warranty by telephone at (800) 872-3490, or by writing to 1501 Westpark Drive, Suite 5, Little Rock, Arkansas 72204; 2) if requested by Trade Fixtures, shipping the defective equipment prepaid to an authorized Trade Fixtures service location; and 3) receiving prior authorization (in writing) from Trade Fixtures that the defective equipment is under warranty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

The agents, dealers or employees of Trade Fixtures are not authorized to make modifications to this warranty or to make additional warranties that are binding on Trade Fixtures. Accordingly, statements by such individuals, whether written or oral, do not constitute warranties and should not be relied upon.

If Trade Fixtures determines in its sole discretion that the equipment does not conform to the warranty, Trade Fixtures, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts (during the applicable parts warranty periods specified above) to repair the defective components; or 2) shall replace the equipment or refund the purchase price for the equipment.

THE BUYER'S REMEDY AGAINST TRADE FIXTURES FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AT TRADE FIXTURES' SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, OFFER REPLACEMENT OR PROVIDE REFUND.

In no event shall Trade Fixtures be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.



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