



NEWGRIND

OUTPERFORMING FROM EDGE TO EDGE

RHINO RL500

RESURFACING MACHINE OPERATOR'S MANUAL

EQUIPMENT USAGES

- Concrete leveling, grinding and polishing
- Glue, thinset and mastic removal
- Terrazzo grinding and polishing
- Stone grinding and polishing
- Hardwood sanding and refinishing



For your personal safety, READ and UNDERSTAND before using.
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

RHINO RL500 USER MANUAL

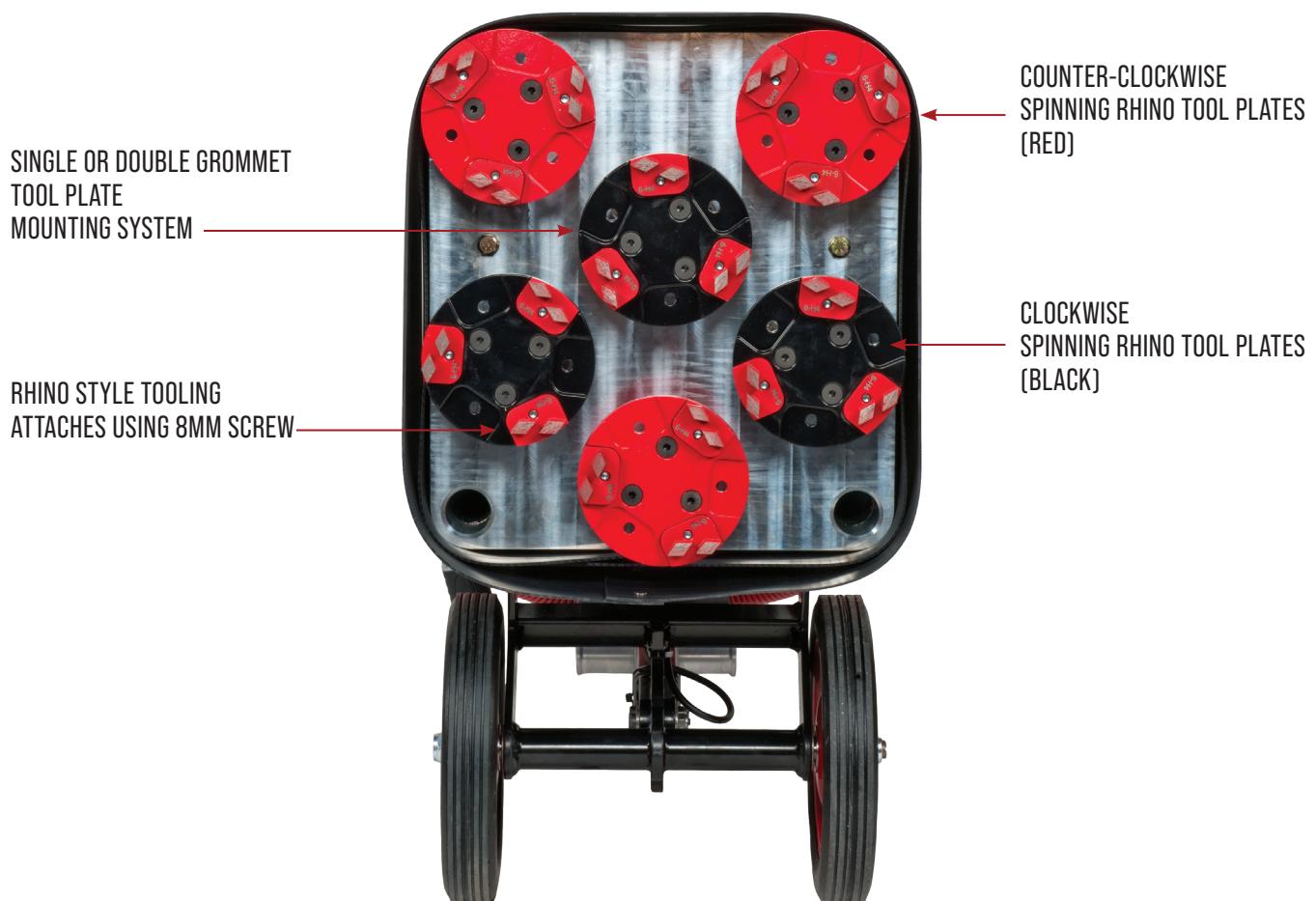
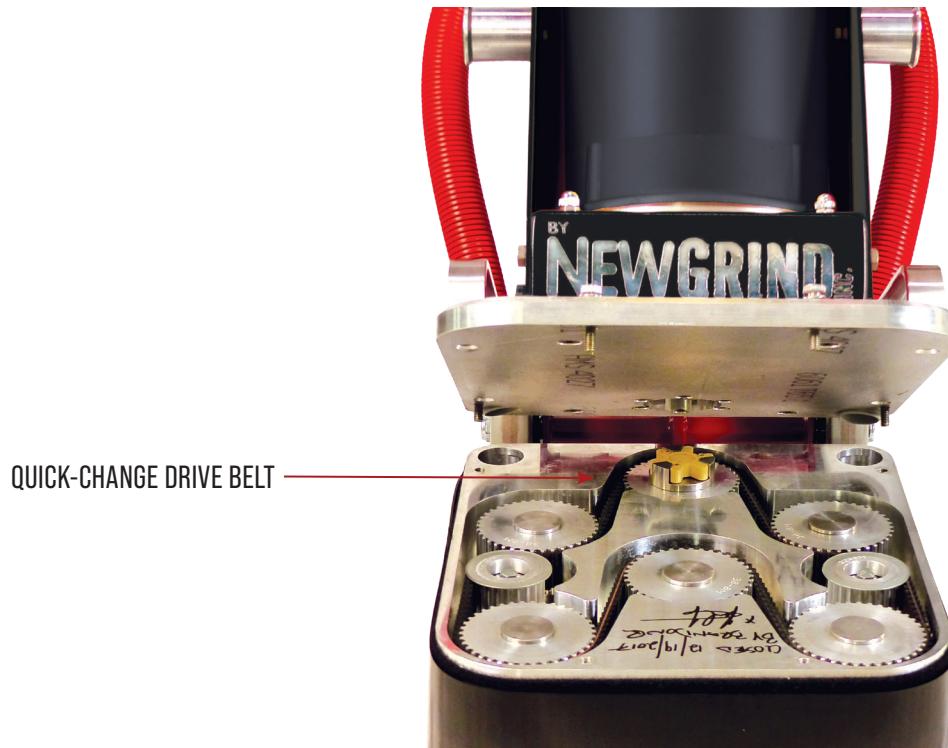
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RHINO RL500 DIAGRAM



RHINO RL500 BOTTOM DIAGRAM



RHINO RL500 MACHINE SPECIFICATIONS

POWER	40 AMP/220-240V Single Phase - 30 AMP/208-230V 3 Phase
MAXIMUM WATTS DRAW	
HP	10
MACHINE WEIGHT	500 lbs
BIASED WEIGHT KIT MAX WEIGHT	360 lbs
COMBINED WEIGHT	860 lbs
DISC SPEED	350-1400 rpm
VARIABLE SPEED CONTROL	YES
NUMBER OF GRINDING HEADS	6
COUNTER-ROTATING HEADS	YES
DISK SIZE	7 inches
GRINDING FOOTPRINT	20 inches
QUICK CHANGE TOOLING	YES
QUICK BELT CHANGING SYSTEM	YES
WET OR DRY GRINDING	YES
UHMW FLOATING DUST SKIRT	YES
MULTI-ARTICULATING HANDLE	YES
RUNS FORWARD OR REVERSE	YES
CAN BE USED AS AN EDGER	YES - grinds to within 1/8 of the edge
DUAL VACUUM MANIFOLDS	YES

TOOLING

RHINO STYLE TOOLING	YES
STANDARD TRAPEZOID	YES

AVERAGE PRODUCTION RATES

[on Medium Hard Concrete]

EXTREMELY HEAVY REMOVAL	500-850 sq./ft. per hour
HEAVY REMOVAL	600-1050 sq./ft. per hour
LIGHT REMOVAL	900-1300 sq./ft. per hour
GRINDING AND PROFILING	800-1450 sq./ft. per hour
POLISHING	1200-1850 sq./ft. per hour

RHINO RL500 SPECIFICATIONS

MODEL	HDX465	HDX465HV
Input Power	200-230V +/- 15% 50/60Hz	380-460V +/- 15% 50/60Hz
Amps	27-30A	14-16A
Plug Type	3P4W 30A 250V 3 ~ [NEMA L15-30P]	3P4W 30A 480V 3 ~ [NEMA L16-30P]
Disc Diameter	6.75" / 170mm	6.75" / 170mm
Disc Speed (RPM)	350 - 1800	350 - 1800
Machine Width	18.25" / 465mm	18.25" / 465mm
Weight	450lbs / 205kg	435lbs / 200kg

GENERAL SAFETY INSTRUCTIONS



WARNING! READ AND UNDERSTAND ALL INSTRUCTIONS.

Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.
SAVE THESE INSTRUCTIONS.

WORK AREA

1. Keep your work area clean and well lit. Cluttered floors and dark areas invite accidents.
2. Do not operate equipment in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Grinding can create sparks which may ignite the dust or fumes.
3. Keep bystanders, children, and visitors away while operating equipment. Distractions can cause you to lose control.

ELECTRICAL SAFETY

4. Do not abuse the cord. Never use the cord to pull the equipment or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
5. When operating equipment outside, use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.
6. Avoid accidental starting. Be sure stop button is depressed before plugging in. Starting equipment with your finger on the start buttons or plugging in equipment that have the buttons depressed invites accidents.

PERSONAL SAFETY

7. Stay alert, watch what you are doing and use common sense when operating equipment. Do not use equipment while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating equipment may result in serious personal injury.
8. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the equipment in unexpected situations.

RHINO RL500 SAFETY INSTRUCTIONS continued

9. Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions. Ordinary eye or sunglasses are NOT eye protection.
10. **DO NOT** turn on equipment while the machine is tilted back. Any tooling fastened to the machine can eject and become a lethal projectile.

EQUIPMENT USE AND CARE

11. The equipment is designed to remove excess surface material. To prevent damage to the equipment and/or serious personal injury, beware of protruding objects or other debris on or embedded in the surface being finished.
12. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing equipment. Such preventive safety measures reduce the risk of starting the equipment accidentally.
13. Maintain equipment with care. Keep tools and accessories in good condition. Properly maintained tools with sharp cutting edges are less likely to fail and are easier to control.
14. Check for binding of moving parts, breakage of parts, and any other condition that may affect the equipment's operation. If damaged, have equipment serviced before using. Many accidents are caused by poorly maintained equipment.
15. Use only tools and accessories that are recommended by the manufacturer for your equipment. Tools and accessories that may be suitable for style of equipment, may become hazardous when used on another style of equipment.

SERVICE

16. **DO NOT** modify the machine. Modifications will void warranty and could result in unsafe operation of equipment.
17. Equipment service should be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
18. When servicing equipment, use only identical replacement parts. Use of unauthorized parts may create a risk of electric shock or injury.

USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. For model HDX465 use 10 gauge cord or larger. For model HDX465HV use 12 gauge cord or larger. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

SPECIFIC SAFETY RULES

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to equipment safety rules. If you use this equipment unsafely or incorrectly, you can suffer serious personal injury.

1. Tools and accessories must be rated for at least the speed stated on the equipment serial plate. Tools and other accessories running over rated speed can fly apart and cause injury.

RHINO RL500 SAFETY INSTRUCTIONS continued

2. Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.
3. Make sure cord is clear of wheels and cutting discs. Do not wrap cord around your arm or wrist.
If control of equipment is lost, cord may become wrapped around you and cause personal injury.
4. Adequate ventilation of your work area is very important when using equipment. Use a dust mask or appropriate respirator.
5. Due to the dusty nature during use of this equipment, be sure to clean equipment often to remove dust accumulations. Carefully blow the dust out of the motor, VFD and dust covered areas frequently.
6. Always install the dust skirt before operation.
7. Check the tools and accessories carefully for cracks or damage before operation. Replace cracked or damaged tools or and accessories immediately.
8. Hold the equipment firmly with both hands during operation.
9. Do not leave the equipment running unattended.
10. Do not touch the tools immediately after operation; they may be extremely hot and could burn your skin.

WARNING:

 Misuse or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

SAVE THESE INSTRUCTIONS.



MACHINE OPERATION:

The Variable Frequency Drive (VFD) is designed to allow the user to operate the equipment on either single phase or three phase power. The equipment is able to operate on either 50 Hz or 60 Hz frequencies. To operate equipment on single phase, a single phase to three phase adapter cord is required. The VFD will automatically adjust for phase or frequency input.

LCD DISPLAY - Shows PAD speed in RPM, % of motor load, and VFD status



STARTING THE EQUIPMENT:

Apply downward pressure on the handle to alleviate some pressure off of the tools and press the green or blue start button. Once the equipment gets started, gently release the downward pressure and start grinding.

The equipment is designed to rotate the tooling in either the forward direction [green button] or reverse direction [blue button] depending on operating needs. Use the equipment in the forward rotation mode [green button] unless reverse rotation is needed. This will ensure consistent tool wear and tool profile. The use of the equipment in the reverse rotation is only needed when surface being finished is uneven and causes the equipment to pull in an undesired direction or when the tooling is glazed and needs to be re-dressed.

RHINO RL500 MACHINE OPERATION continued

Use the knob, located under the right side handle grip, to adjust speed of equipment. Before starting the equipment, ensure that the speed is set to the lowest speed available as displayed on the VFD screen. Doing so will prevent unexpected high speed start up which could cause some tools to eject or cause undesirable marks to the surface being finished.

Never exceed the maximum speed of the tooling being used! Doing so could cause tooling to eject from the tool plate holder or cause irreparable damage to the surface being finished.

DO NOT LIFT THE EQUIPMENT OFF THE GROUND WHILE STARTING! Doing so can cause the tools to release from the equipment and cause damage to the surface being finished and harm to the user!

STOPPING THE EQUIPMENT:

To stop the equipment, turn speed control knob to the slowest setting and push the red stop button on the face of the handle or the red stop button on the VFD.

Changing tools and accessories: Always turn off and disconnect power from the machine when performing any operations to the bottom of the machine!

To change tool segments on the tooling plate, use a flat bladed screw driver gently insert the screw driver in between the tool segment and the tool plate so that the tool segment is separated from the magnet.

When installing tool segments into tool plates be careful so as to not have fingers placed between tool segment and magnet as the magnets are powerful and could pinch fingers or skin causing injury.

When removing and inserting tool plates or adapter plates, be sure to inspect rubber grommets for signs for wear and replace any damaged grommets.

Using grommets that are damaged or missing can cause unexpected equipment operation and increase the chance of tool plate / adapter plate ejection or violent vibration leading to loss of control of equipment!

HANDLE ADJUSTMENT:

To adjust the handle, pull either pop pin on the handle and move handle up or down to the desired position. Avoid stepping on or tangling handle control cable when adjusting the handle position. Make sure that the pop pin clicks in place when the desired position is achieved.

Failure to check for positive engagement could result in damage to the equipment or injury to the user as the handle could release unexpectedly when the machine is being operated or tilted back!

VFD FEATURES:

The machine is outfitted with a VFD (Variable Frequency Drive) enabling the user to select the desired operating speed. **The VFD also possesses many features such as:**

- Under voltage protection - Over current protection
- 60Hz and 50Hz capability (international)
- Wide voltage range
(200-230V +/- 15% for 230V model)
(380-460V +/- 15% for 460V model)
- Soft start
- Speed display - Load display
- Current limiting

RHINO RL500 MAINTENANCE

MAINTENANCE:

General:

- Disconnect power before performing any maintenance, cleaning, or repair to your equipment!
- When the equipment is not in use, make sure that the adapter plate assemblies have something attached to them to protect the Velcro. Resting the machine directly on unprotected Velcro will crush the fastening material causing the Velcro to become unusable.

Daily:

- Wipe down the equipment after every job.
- Gently remove dirt and debris from the Velcro hook material using a wire brush. This will ensure maximum adhesion.
- Check that the handle bolts are tight.
- Vacuum or wipe underside of machine.
- Inspect plug ends for signs of carbon deposits or arcing.
- Check all fasteners and tighten if necessary.

Weekly:

- Inspect handle wires for damage.
- Blow off VFD heat sink with compressed air.
- Blow out VFD cooling fin fan(s) with low pressure compressed air (30psi or less).
- Cleaning the fan(s) prevents fan failure and potential VFD overheating. Do not over-speed the fan(s) with compressed air!
- Blow off motor fan with compressed air.
- Remove tool plate holders and wipe down bearing shields with a damp cloth. Do not use any sharp object or abrasive pad to clean the bearing shields. This can compromise the bearing seal! Re-install tool plate drivers using blue medium strength thread locking compound.
- Using a soft scrub pad, remove any excess dirt build up from the bottom plate and back side of pad drivers.
- Inspect tool plate driver grommets for signs of wear. Replace grommets that show signs of extensive wear.

Monthly:

- Check all strain reliefs and make sure they are tight so as to avoid cords being pulled out of the VFD or handle.
- Remove tool plate drivers and inspect threads to make sure that there are no signs of cross threading or stripping. Remove excess thread locking compound from bolts using a wire brush or solvent bath.
- Clean and lubricate wheels.
- Using an extremely light abrasive pad, remove any topical rust from the shafts.
- Clean and lubricate pop pin mechanisms.

RHINO RL500 VFD ERROR CODES

This table shows the fault codes that may be displayed during VFD operation, along with suggestions for recovering from the fault condition.

Note: Shaded faults are auto-resettable, except where noted.

CODE	FAULT DISPLAY	DESCRIPTION	ADV. FAULT CODE	EXPLANATION	SUGGESTIONS FOR RECOVERY
1	System	System Fault	0, 1, 2	Internal Microprocessor Problem	Consult factory for repair or replacement.
			3	Thermistor profile incorrect	Consult factory for repair or replacement.
2	EE Checksum	Checksum Error	0	Memory problem when reflashing the drive's memory	<ul style="list-style-type: none"> Reset drive to factory settings. Consult factory.
			1, 2, 3	Conflict in drive's memory	<ul style="list-style-type: none"> Reset drive to factory settings. Consult factory.
			4	Unable to write an EE parameter after a parameter has been changed through the keypad or SIO	<ul style="list-style-type: none"> Reset drive to factory settings. Consult factory.
			5	The drive is receiving EE write requests faster than they can be processed. This would typically be caused by writing parameters too frequently through Modbus.	Slow down the frequency of Modbus writes.
3	Curr Calibr	Current Calibration Fault	0	Current calibration fault on phase T1/U	<ul style="list-style-type: none"> Check the motor connections to the terminal strip of the drive and at the motor. Have motor checked. Consult factory for repair or replacement of drive.
			1	Current calibration fault on phase T2/V	
			2	Current calibration fault on phase T3/W	
4	Power Supp	Power supply fault	0	5V supply is below 4 Vdc for more than 100 ms	<ul style="list-style-type: none"> Increase resistance between REF and analog inputs. Check wiring to REF terminals. Consult factory.
6	IOC Trip	Instantaneous overcurrent trip	0	Short circuit was detected on power-up	<ul style="list-style-type: none"> Remove the short from the power wiring Check for shorted motor Consult factory
			1	Short circuit was detected during operation	
7	MOL	MOL Contact Fault	0	The MOL digital input was activated, depending on pull-up or pull-down logic configuration	Reset MOL contact or remove condition causing the MOL contact activation

RHINO RL500 VFD ERROR CODES continued

Note: Shaded faults are auto-resettable, except where noted.

CODE	FAULT DISPLAY	DESCRIPTION	ADV. FAULT CODE	EXPLANATION	SUGGESTIONS FOR RECOVERY
8	Model ID	ID # Out of Range	0, 1, 2	Control board is not reading the drive ID properly.	Consult factory for repair or replacement.
10	Res Lockout	Restart Lockout	0	The number of fault restarts is greater than the limit defined in the customer parameter.	Check the actual fault in the fault log and use the appropriate remedy.
11	Ground	Ground Fault	0	The drive has detected current imbalance between output phases. Imbalance determined to be current flow to ground	<ul style="list-style-type: none"> · Check for unbalanced currents. · Check for grounded motor leads or motor. · Consult factory
12	Vac Imblnce	Input voltage Imbalance	0	The drive has detected a singlephase condition or a voltage imbalance outside the drive's rating while running a load that could be damaging to the drive.	Check input voltage and current for imbalance, and correct.
13	OverVoltage	OverVoltage Condition	0	The drive has detected an overvoltage condition during power-up (not auto-resettable).	Verify incoming line power is within specification. Add reactor or transformer to correct
			1, 3	The drive has detected an overvoltage condition during a running condition.	Verify incoming line power and check for regenerative load. Reduce Regen load or add dynamic braking resistors. Regen Current Limit may help; consult factory.
			2	The drive has detected an overvoltage condition on power-up on the load side.	Verify incoming line power is within specification. Add reactor or transformer to correct
15	Dyn Brake	Dynamic Brake Overload	0	The DB circuit is active on power-up (not auto-resettable)	Check for failed braking transistor. Consult factory.
			1	The DB circuit is being activated for too long, possibly causing the resistor to overheat or fail.	Reduce braking cycle or increase capacity. Activate current limit; consult factory
			2	The DB circuit is overloaded because of too large a regenerative load	Reduce braking cycle or increase capacity. Activate current limit; consult factory
			3, 4, 5	The DB circuit is faulty on power-up (not auto-resettable).	

RHINO RL500 VFD ERROR CODES continued

Note: Shaded faults are auto-resettable, except where noted.

CODE	FAULT DISPLAY	DESCRIPTION	ADV. FAULT CODE	EXPLANATION	SUGGESTIONS FOR RECOVERY
18	OverCurrent	OverCurrent Condition	0	The drive sensed an overcurrent condition on power-up (not autoresettable).	Check for failed output power device or shorted motor.
			1	The drive sensed an overcurrent condition during operation. The current has exceeded the safe operation point of power devices.	Reduce load on motor. Verify that Motor FLA is programmed correctly. Check for mechanical binding and shock loading.
19	Over Temp	Over Temperature Condition	0	The temperature of the heatsink exceeded a temperature limit.	Check that ambient temperature does not exceed drive's rating. Check for fan operation (assuming drive has fans installed).
			1	The temperature of the control board exceeded a temperature limit	Check that ambient temperature does not exceed drive's rating. Check for fan operation (assuming drive has fans installed).
			2	The drive sensed the heatsink thermistor sensor is faulty or not connected properly.	Check thermistor connections or replace. Consult factory.
			3	The drive sensed the control board thermistor sensor is faulty or not connected properly	Check thermistor connections or replace. Consult factory.
20	Motor TOL	Motor Timed Overload Trip	0	The drive detected an overload that exceeds the customer's defined overload setting.	Check load current demand. Verify Motor FLA is programmed to the correct value. Verify TOL characteristic is correct for the application.
21	Low Temp	Low Temperature	0	This fault occurs if the temperature of the heatsink falls below -10.0 degrees C.	Verify that ambient temperature is within the drive's specifications; increase the ambient temperature if necessary
22	Ref Loss	Speed Reference Loss	0	The drive detected the analog input was configured to fault if the input current went below the level specified by customer parameters.	Check physical connections for reference signal. Check that programming for 4-20 mA signal is correct. Verify that signal to the drive is correct.
23	Brk Wire	Broken Wire Detection	0	The drive detected that the potentiometer circuit wiring opened and generated a fault.	Check wiring for loss of connection to control terminals. Check that a proper-value potentiometer is installed.

RHINO RL500 VFD ERROR CODES continued

Note: Shaded faults are auto-resettable, except where noted.

CODE	FAULT DISPLAY	DESCRIPTION	ADV. FAULT CODE	EXPLANATION	SUGGESTIONS FOR RECOVERY
24	Keypad Loss	Keypad Loss	0	This fault occurs because of a problem with the keypad or a keypad connection. It occurs if the drive detects that it cannot read any key presses.	Check the connection from keypad to control board. Note that the keypad is not designed for remote mounting.
			1	This fault occurs because of a problem with the keypad, a keypad connection, or the wrong keypad is being used. It occurs if the keypad ID for an X4 cannot be read.	
			2	This fault occurs because of a problem with the keypad or a keypad connection. It occurs if the drive detects that it cannot write to the LCD.	
25	Comm Loss	Communication Loss	0	This fault occurs when the drive is in a serial link control path and the amount of time since the last Modbus comm. exceeds the time set in parameter 903 (SIO Timer).	Check connections to the Modbus port. Adjust value of parameter 903 (SIO Timer) as needed.
26	Regen Time	Regen Timeout	0	This fault occurs if the drive takes more time to decelerate to a stop than is allowed. The timeout is determined by the longest deceleration ramp time [Decel1 or Decel2] plus the Regen Timeout parameter.	Reduce the amount of regenerative energy or increase the Regen timeout parameter.
27	Pwr Bridge	Power Bridge Fault	0, 1, 2	The drive detected a failure in the output power devices.	Check for failed input power device.
28	Drive TOL	Drive Time Overload	0	The drive sensed an overload that exceeded the drive rating.	Check that load conditions do not exceed the drive's rating (120% for 60 seconds from nameplate current rating for normal duty and 150% or rated current for 60 seconds heavy duty).
29	Stuck Key	Stuck Key Error	0	This fault occurs if a key press is detected upon power-up. This would occur because of a defective keypad or because someone was holding down a key when powering-up the drive.	Check for stuck keypad and repair or replace. Consult factory.

RHINO RL500 VFD ERROR CODES continued

Note: Shaded faults are auto-resettable, except where noted.

CODE	FAULT DISPLAY	DESCRIPTION	ADV. FAULT CODE	EXPLANATION	SUGGESTIONS FOR RECOVERY
30	Param Range	Parameter out of range	0	One of the customer parameters is out of range.	Check for a parameter value saved out of the standard range. Reset parameters to factory default. Consult factory.
31	Pwr Wiring	Power Wiring Error	0	This fault flags a problem with the drive wiring.	Check that input power wiring is not connected to load power terminals. Consult factory.
			1	This fault can occur if an IOC fault is detected during the power wiring test.	
32	Low Voltage	Low Voltage Trip	0	This fault occurs if a power dip occurs when the drive is operating, and the drive is not able to ride through the power dip before shutting off outputs	Verify that input line power is within the drive's specifications. Add a transformer or reduce demands to power feed. Consult factory.
33	1Ph Overload	1Ph Overload	0	If the user configures parameter 517 [Single Phase] for singlephase operation, this fault occurs if the bus voltage ripple is outside the limit of the drive.	Check that input power demand does not exceed the drive's capacity for single-phase operation. Consult factory
34	RS Meas. Fail	Stator resistance measurement failed	0	If the drive cannot measure the stator resistance properly, this fault occurs.	Try the routine again and if the fault occurs twice, consult the factory.
35	Fan Loss	Loss of fan control or operation	0	There is a problem with the heat sink fan.	Consult factory.
			1	There is a problem with the internal fan. This occurs only on Size 4 and 5 models. All other models display a fan error warning. Note that this is lack of fan control, so the fan can be spinning and this fault will still occur. This can happen if the fan is on and should not be, or if the fan feedback signals are obstructed from getting to the control board.	

RHINO RL500 VFD ERROR SCREENS



The VFD is capable of handling a wide range of input power. The voltage range for the 230V models is 200-230V +/-10% [180-253V] and for the 460V models is 380-460V +/-10% [342-506V]. If input source power is just outside of these ranges, the above screen will be displayed. The VFD is protected from voltage fluctuations within the specified voltage range. Check voltage before plugging in equipment to insure safe operation.

If a machine is plugged into a power source that is above the machine's maximum voltage capability [ex. 230V model plugged into a 460V power source] this will damage and/or destroy the internals of the VFD and void warranty!

LIMITED EQUIPMENT WARRANTY OF SALE

NewGrind Inc. warrants that each new unit manufactured for New Grind Inc. to be free from defects in material and workmanship in normal use and service for a period of [2] one year from date of shipment to the original retail or equipment rental center owner. Accessories or equipment furnished and installed on the product by New Grind Inc. but manufactured by others, including, but not limited to engines, motors, electrical components, transmissions etc., shall carry the accessory manufacturers own warranty.

NewGrind Inc. will, at its option, repair or replace, at the NewGrind Inc. factory or at a point designated by NewGrind Inc. any part which shall appear to the satisfaction of NewGrind Inc. inspection to have been defective in material or workmanship. NewGrind Inc. reserves the right to modify, alter and improve any part or parts without incurring any obligation to replace any part or parts previously sold without such modified, altered or improved part or parts. This warranty is in lieu of and excludes all other warranties, expressed, implied, statutory, or otherwise created under applicable law including, but not limited to the warranty of merchantability and the warranty of fitness for a particular purpose in no event shall seller or the manufacturer of the product be liable for special, incidental, or consequential damages, including loss of profits, whether or not caused by or resulting from the negligence of seller and/or the manufacturer of the product unless specifically provided herein. In addition, this warranty shall not apply to any products or portions thereof which have been subjected to abuse, misuse, improper installation, maintenance, or operation, electrical failure or abnormal conditions and to products which have been tampered with, altered, modified, repaired, reworked by anyone not approved by seller or used in any manner inconsistent with the provisions of the above or any instructions or specifications provided with or for the product.

RHINO RL500 FORCE MAJEURE

Seller's obligation hereunder are subject to, and Seller shall not be held responsible for, any delay or failure to make delivery of all or any part of the product due to labor difficulties, fires, casualties, accidents, acts of the elements, acts of God, transportation difficulties, delays by a common carrier, inability to obtain product, materials or components or qualified labor sufficient to timely perform part of or all of the obligations contained in these terms and conditions, governmental regulations or actions, strikes, damage to or destruction in whole or part of manufacturing plant, riots, terrorist attacks or incidents, civil commotions, warlike conditions, flood, tidal waves, typhoon, hurricane, earthquake, lightning, explosion or any other causes, contingencies or circumstances within CANADA not subject to the Seller's control which prevent or hinder the manufacture or delivery of the products or make the fulfillment of these terms and conditions impracticable. In the event of the occurrence of any of the foregoing, at the option of Seller, Seller shall be excused from the performance under these Terms and Conditions, or the performance of the Seller shall be correspondingly extended. This document sets forth the terms and conditions pursuant to which the purchaser ("Purchaser") will purchase and New Grind Inc. ("Seller") will sell the products, accessories, attachments (collectively the products " ") ordered by the Purchaser. These terms and conditions shall govern and apply to the sale of Seller's products to Purchaser, regardless of any terms and conditions appearing on any purchase order or other forms submitted by Purchaser to Seller, or the inconsistency of any terms therein and herein.

LIABILITY LIMITATIONS

The remedies of the user set forth under provisions of warranty outlined above are the exclusive and total liability of NewGrind Inc. with the respect to their sale or the equipment and service furnished hereunder, in connection with the performance or breach thereof, or from the sale, delivery, installation, repair or technical direction covered by or furnished under the sale, whether based on contract, warranty, negligence, indemnity, strict liability, or otherwise shall not exceed the purchase price of the unit of equipment upon which such liability is based.

NewGrind Inc. will not in any event be liable to the user, any successors in interest or any beneficiary or assignee relating to this sale for any consequential, incidental, indirect, special or punitive damages arising out of this sale or any breach thereof, or any defects on, or failure of, or malfunction of the equipment under this sale based upon loss of use, lost profits or revenue, interest, lost goodwill, work stoppage, impairment of other goods, loss by reason of shutdown or nonoperation, increased expenses of operation of the equipment, cost of purchase or replacement power of claims of users or customers of the user for service interruption whether or not such loss or damage is based on contract, warranty, negligence, indemnity, strict liability, or otherwise.

NewGrind Inc. reserves the right to modify, alter and improve any part or parts without incurring any obligation to replace any part or parts previously sold without such modified, altered or improved part or parts.

No person is authorized to give any other warranty or to assume any additional obligation on NewGrind Inc.'s behalf unless made in writing and signed by an officer of NewGrind Inc.

RHINO RL500 TERMS & CONDITIONS

1. PRICE

All prices set forth on any purchase order or other document are F.O.B. Sellers facility or distribution point, as may be determined by Seller (F.O.B. Point). All prices are exclusive of any and all taxes, including, but not limited to, excise, sales, use, property or transportation taxes related to the sale or use of the products, now or hereafter imposed, together with all penalties and expenses. Purchaser shall be responsible for collecting and/or paying any and all such taxes, whether or not they are stated in any invoice for the Products. Unless otherwise specified herein, all prices are exclusive of inland transportation, freight, insurance and other costs and expenses relating to the shipment of the Products from the F.O.B. point to Purchaser's facility. Any prepayment by Seller of freight insurance and other costs shall be for the account of Purchaser and shall be repaid to Seller.

2. PAYMENT TERMS

Payment terms are as follows: NewGrind Inc. Machines - Payment prior to delivery.

*All past due accounts are subject to a late payment fee of 1.5% per month or a maximum allowed by law if different, along with the expenses incidental to collection including reasonable attorney's fees and costs.

*Seller reserves the right to hold shipments against past due accounts.

*Seller reserves the right to alter payment terms.

3. FREIGHT TERMS

All shipments will be made F.O.B. shipping point as designated in these Terms and Conditions, and title shall pass at the F.O.B. point. Delivery to the initial common carrier shall constitute delivery to the Purchaser. Any claims for loss or damage during shipment are to be filed with carrier by the Purchaser.

Seller will not assume responsibility for the performance of the carrier. Backorders will be shipped in the most practical fashion with charges consistent with our freight policy established with the original order. UPS, FED EX, MAIL or shipments by other couriers are subject to the same terms and conditions as outlined in paragraph #3 "Freight Terms".

4. DELIVERY, DAMAGES, SHORTAGES

Seller shall use reasonable efforts to attempt to cause the Products to be delivered as provided for in these Terms & Conditions. Delivery to the initial common carrier shall constitute the delivery to the Purchaser. Seller's responsibility, in so far as transportation risks are concerned ceases upon the delivery of the Products in good condition to such carrier at the F.O.B. point and all the Products shall be shipped at the Purchaser's risk. Seller shall not be responsible or liable for any loss of income and/or profits, or incidental, special, consequential damages resulting from Seller's delayed performance in shipment and delivery.

5. RETURN OF DEFECTIVE PRODUCTS

Defective or failed material shall be held at the Purchaser's premises until authorization has been granted by Seller to return or dispose of Products. Products that are to be returned for final inspection must be returned Freight Prepaid in the most economical way. Credit will be issued for material found to be defective upon Seller's inspection based on prices at time of purchase.

RHINO RL500 TERMS & CONDITIONS continued

6. PRODUCTS ORDERED IN ERROR

Products may be returned, provided that claim is made, and Seller is notified within 7 days of receipt of Products, and the Products are in original buyer's possession not more than 30 days prior to return, subject to Seller's approval. If Products are accepted for return, they must be Freight Prepaid and buyer will be charged a minimum of 15% restocking charge, plus a charge back for outbound freight charges if the original order was shipped prepaid. Returns are not accepted for any Products that are specifically manufactured to meet the buyer's requirement of either specifications or quantity.

AGREEMENTS

These Terms and Conditions constitute the entire agreement between Seller and Purchaser as it relates to terms and conditions of sale and supersedes any and all prior oral or written agreements, correspondence, quotations or understandings heretofore in force between the parties relating to the subject matter hereof.

There are no agreements between Seller and Purchaser with respect to the Product herein except those specifically set forth in and made part of these terms and conditions. Any additional terms, conditions and/or prices are rejected by Seller. These terms and conditions may be modified, cancelled or rescinded only by a written agreement of both parties executed by their duly authorized agents.



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