Radley®

6" Bench Grinder

OWNER'S MANUAL

TRIED AND TESTED – TRIED AND TESTED –

3 Year Limited Warranty on tool

c UL us
LISTED
E154499
SBG150B

READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.

WEAR CSA APPROVED EYE PROTECTION

WEAR EAR PROTECTION

WEAR FACE PROTECTION

PRODUCT SPECIFICATIONS

6” Bench Grinder	
Rating	120V~ 60 Hz, 2.1 Amp Induction motor
Max Wheel Diameter	6” (152mm)
Max Wheel Face	3/4” (19mm)
No Load Speed	3,450 RPM
Arbor Size	1/2’’ (12.7mm)
Cord	6 foot SJT
Replacement Wheels	1362-600 & 1362-601
Weight	17.2 Lb (7.8kg)

NEED ASSISTANCE?

Call us on our toll- free customer support line:
1-866-349-8665 (Monday through Friday 9am – 5pm Eastern Standard Time)

- Technical questions
- Replacement parts
- Parts missing from package

TABLE OF CONTENTS

GENERAL SAFETY WARNINGS

WARNING:

Before using this tool or any of its accessories, read this manual and follow all Safety Rules and Operating Instructions. The important precautions, safeguards and instructions appearing in this manual are not meant to cover all possible situations. It must be understood that common sense and caution are factors which cannot be built into the product.

SYMBOL	MEANING
	**ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA Z94.3 or ANSI SAFETY STANDARD Z87.1** FLYING DEBRIS can cause permanent eye damage. Prescription eyeglasses ARE NOT a replacement for proper eye protection. **Non-compliant eyewear can cause serious injury if broken during the operation of a power tool.**
	Use hearing protection, particularly during extended periods of operation of the tool, or if the operation is noisy.
	**WEAR A DUST MASK THAT IS DESIGNED TO BE USED WHEN OPERATING A POWER TOOL IN A DUSTY ENVIRONMENT.** Dust that is created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals that are known to cause cancer, birth defects, or other genetic abnormalities. These chemicals include: ● Lead from lead-based paints ● Crystalline silica from bricks, cement, and other masonry products ● Arsenic and chromium from chemically treated lumber the level of risk from exposure to these chemicals varies, according to how often this type of work is performed. In order to reduce exposure to these chemicals, work in a well-ventilated area, and use approved safety equipment, such as a dust mask that is specifically designed to filter out microscopic particles.

READ ALL INSTRUCTIONS

WARNING! Read and understand all instructions before using this tool. The operator must follow basic precautions to reduce the risk of personal injury and/or damage to the equipment.

1. KEEP GUARDS IN PLACE and in working order.

2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

4. DON’T USE IN DANGEROUS ENVIRONMENT. Don’t use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.

5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.

6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.

7. DON’T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.

8. USE RIGHT TOOL. Don’t force tool or attachment to do a job for which it was not designed

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

11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

12. SECURE WORK. Use clamps or a vise to hold work when practical. It’s safer than using your hand and it frees both hands to operate tool.

13. DON’T OVERREACH. Keep proper footing and balance at all times.

14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.

16. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.

17. USE RECOMMENDED ACCESSORIES. Consult the owner’s manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.

18. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.

19. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don’t leave tool until it comes to a complete stop

SERVICE

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained. Use only identical replacement parts.

SPECIFIC SAFETY RULES

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

DANGER! When the tool is in operation, keep hands away from the saw blade and the area it is being applied to. Failure to follow this warning will result in amputation, serious personal injury or death.

- Do not operate with any guard disabled, damaged, or removed. Moving guards must move freely and close instantly.
- Never operate the grinder with broken wheels. The grinding wheels operate at 3 450 RPM. A broken wheel could turn into a missile.
- Never leave the tool running while unattended.
- Avoid unintentional starting. Prepare to begin work before turning on the tool.
- Never stick an object against a wheel to stop the grinder. Let it slow on its own.
- Always use the tool rest and safety guard. Supports and guards are essential for safe grinder operation.
- Use only properly sized wheels. The wrong sized wheel can dangerously increase or decrease operating speed at the
- grinding surface. A wheel that is too large could come in contact with the wheel housing, potentially damaging the machine.
- Do not overtighten wheel nut.
- Always wear eye protection. The grinder can throw off sparks and tiny metal shards. Use eye protection to avoid operator injury.
- Adjust tool rest properly. The grinder has the potential for binding against a workpiece introduced at an improper angle - and send it flying. Avoid grinding your workpiece at angles greater than 90。 to the direction of wheel travel.
- Allow grinder to reach full speed. Let the grinding wheel reach its full operating speed before using the grinder.
- Secure grinder. Attach the grinder firmly to your benchtop. Secure attachment will ensure your grinder will not move when operated.
- Avoid overheating workpiece. Excessive or prolonged grinding on a workpiece can heat it to the point where it becomes dangerous to the operator. Excessive grinding can also soften your workpiece and ruin its edge.
- Never grind small stock. Do not attempt to grind or sharpen anything that cannot be adequately supported by the tool rest. Use clamping pliers or a similar holder when grinding parts which cannot be held easily by hand.
- Keep a clean work area. The chances of an accident are far less if the area around your grinder is kept free of clutter.
- Avoid loose fitting clothing and tie back long hair. A grinder's spindle, spinning at 3,450 RPM, can suck a tremen-dous amount of material in a very short time - given the chance. Don't give it the chance.
- Accessories must be rated for at least the speed recommended on the tool warning label. Wheels and other accessories running over the rated speed can fly apart and cause injury.
- Never start the tool with a person in line with the wheel. This includes the operator
- Do not operate the grinder near flammable liquids, gases or dust. Sparks or hot chips from grinding may ignite combustible materials.
- Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

WARNING! Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: Lead from lead-based paints, Crystalline silica from bricks and cement or other masonry products, Arsenic and chromium from chemically treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

WARNING! Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

Vibration Safety

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

1. **Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any medical or physical symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.**
2. **Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.**
3. **Use tools with the lowest vibration when there is a choice between different processes.**
4. **Include vibration-free periods each day of work.**
5. **Grip workpiece as lightly as possible (while still keeping safe control of it). Let the tool do the work.**
6. **To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately**

Double insulation

Double insulation is a concept in safety in electric power tools, which eliminates the need for the usual three-wire Grounded power cord. All exposed metal parts are isolated from the internal metal motor components with protecting insulation. Double insulated tools do not need to be grounded. The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal wiring . Observe all normal safety precautions to avoid electrical shock. The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal wiring.
Observe all normal safety precautions to avoid electrical shock.

NOTE: Servicing of a tool with double insulation requires extreme care and knowledge of the system and should Be Performed only by a qualified service technician. For service, we suggest you return the tool to the nearest authorized service center for repair. Always use original factory replace- ment parts when servicing.

Electrical Connection

This tool has a precision-built electric motor. It should be connected to a power supply that is 120 volts, 60 Hz, AC only (normal household current). Do not operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If your tool does not operate when plugged into an outlet, double-check the power supply.

Grounding Instruction

In the event of a malfunction or break- down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipent-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.
Improper connection of the equipment-grounding conductor can result. It in electrical shock. The conductor with Insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.
Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Repair or replace a damaged or worn cord immediately.
This tool is intended for use on a circuit that has an outlet like the one shown in Fig.1. It also has a grounding pin like the one shown.

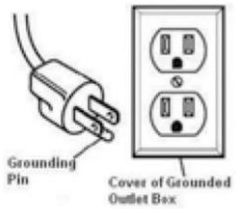

Fig. 1

WARNING:
ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE MACHINE DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

SAFETY SYMBOLS

WARNING: Some of the following symbols may appear on your tool. Study these symbols and learn their meaning. Proper interpretation of these symbols will allow for more efficient and safer operation of this tool.

	WARNING: Please read all the safety and operating instructions carefully before using this tool. Please pay particular attention to all sections of this User Guide that carry warning symbols and notices. Some of the following symbols may be used on this tool.
	Observe caution and safety notes. To reduce the risk of injury, user must read and understand User Guide before using this tool.
	Wear ear protection.
	Wear protective helmet and eye protection.
	Switch off and remove plug from power source before cleaning or maintenance.
	Do not use in the rain or leave outdoors while it is raining.
	Keep bystanders away.
	Don't touch the inlet and outlet when the vacuum cover is opened, or the tube is removed.
	Double insulation.
	Remove plug from the power source immediately if the power cord is damaged or cut.

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This symbol designates that this tool is listed with Canadian and U.S. requirements by UL

UL 987 , Stationary and Fixed Electric Tools

CSA C22 . 2 No . 71.2-10 Electric Bench Tools

Extension Cord Safety

WARNING

Keep the extens1on cord clear of the working area.

Position the cord so it will not get caught on the workpiece, tools or any other obstructions while you are working with the power tool.

1. Make sure any extension cord used with this tool is in good condition. When using an extension cord, be sure to use one of heavy enough gauge to carry the current the tool will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
2. The table below shows the correct size to use according to cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.
3. Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it. Protect your extension cord from sharp objects, excessive heat and damp or wet areas.
4. Use a separate electrical circuit for your power tools. This circuit must not be less than 14 gauge wire and should be protected with either a 15 A time delayed fuse or circuit breaker. Before connecting the power tool to the power source, make sure the switch is in the OFF position and the power source is the same as indicated on the nameplate. Running at lower voltage will damage the motor.

MINIMUM GAUGE(AWG)EXTENSION CORDS(120V)USE ONLY					
Amperage rating		Total length			
More than	Not more than	25' (7.5 m)	50' (15 m)	100' (30 m)	150' (45 m)
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Applicable	

KNOW YOUR BENCH GRINDER

1 Eye Shield

2 Spark Deflector

3 Wheel Cover

4 Power Switch

5 Interlocking Knob

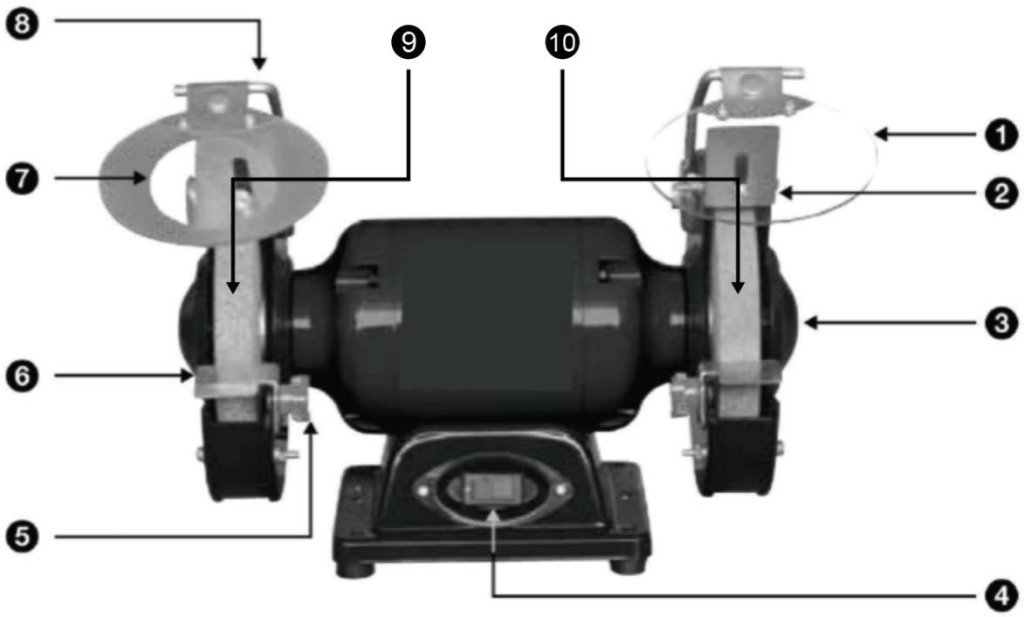
6 Tool Rest

7 Magnifier Shield

8 Eye Shield Rod

9 Grinding Wheel

10 Grinding Wheel



ASSEMBLY AND OPERATION

WARNING: Read the entire important safety information section at the beginning of this manual including All text Under subheadings therein before assembling or use of this power tool.

WARNING: To prevent serious injury from accidental operation, disconnect the power plug before carrying out any adiustements or maintenance.

WARNING: Always make sure your bench grinder is securely mounted to a workbench or an approved workstand. Failure to do so could result in an accident resulting in possible serious personal injury.

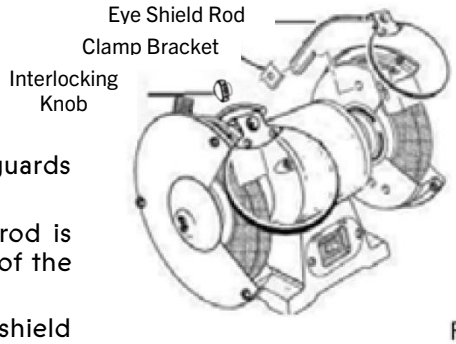


Fig. 3

Mounting Eye Shield Rod and Eye Shield

- Mount the left and right eye shield rod (8) to the inside of the wheel guards using the clamp brackets and Interlocking Knob.
- Use the illustration (Fig.3) as a guide to determine which eye shield rod is mounted on the left and which eye shield rod is mounted on the right of the grinder.
- Once eye shield rods are firmly in place, slide the shield bracket onto the shield rod. Tighten the carriage bolt leaving it loose enough to allow the eye shield to be raised and lowered easily.

Mounting Spark Deflector

- Using hex bolts and washers attach the spark deflector (2) to the inside of the wheel guard. (Fig.4)
- Adjust the spark deflectors to within 1/16 in. of the grinding wheel. Tighten the hex bolts securely.

Fig. 4

Mounting and Adjusting Tool Rest

- Mount the tool rests (Part # 6 on the “Know your Grinder” page) to the tool rest bracket using the Interlocking knob (Part # 5 on the “Know your Grinder” page). (Fig.5)
- Before tightening the Interlocking knob (Part # 5 on the “Know your Grinder” page), adjust the gap between the grinding wheel and the tool rest to a maximum of 1/ 16 in. Tighten securely.

WARNING: The tool rest should only be adjusted when the grinding wheel is completely stationary, and the tool is disconnected from the power supply.

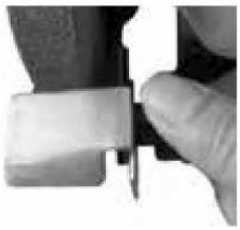


Fig. 5

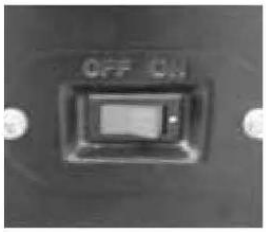


Fig. 6

WARNING: Before connecting your power tool to a power supply, always check to be sure switch is not in lock-on Position. Failure to do so could result in accidental starting of your power tool.

Switching ON/OFF

1. Check that the switch (Part # 4 on the “Know your Grinder” page) is in the “OFF” position before connecting the machine to the power supply.
2. Press the power switch into the “ON” position to start your bench grinder. (Fig.6)
3. Always keep the power cord out of the way of the tool’s moving parts.
4. To switch off the grinder, press the power switch into the “OFF” position.

Grinding

WARNING: Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, wear a dust mask.

1. Make sure that the Switch is in the off-position, then plug in the tool.
2.. Turn on the tool.
3. Allow the tool to come up to full speed before touching the wheel.
4. Apply the workpiece to the wheel, allowing the tool to operate at full speed. If the tool bogs down, use lighter pressure.
5. To create a smoother surface, keep the workpiece moving over the wheel.
6. To prevent accidents, turn off the tool and unplug the tool from its electrical outlet after use. Clean, then store the tool indoors out of children’s reach.

Replacing a Grinding Wheel

The Grinding Wheel MUST be:

- Rated to at least 3,450 RPM.
- No larger than 6″ (152.4 mm) in diameter.
- Fitted with a 1/2″ round arbor hole.
- 3/4″ thick.
- Suitable for edge grinding, not surface grinding.
- Dry and clean.
- Inspected for damage.

Steps

1. Loosen the three screws and remove the wheel cover. (Fig.7)
2. Turn the nut clockwise with a wrench. (Fig.7)
3. Remove the grinding wheel and fit the new one over the motor spindle,
   Put the outside flange and the nut back. Tighten the nut by hand.
4. Use the wrench to turn the nut counterclockwise and tighten the nut.
5. Mount the wheel cover and eye shield in reverse order.

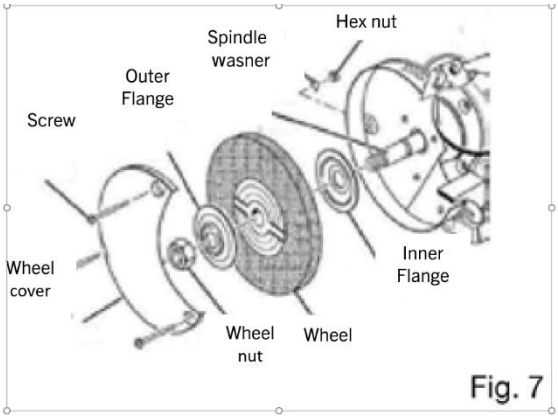


Fig. 7

WARNING: Always disconnect the bench grinder from the power supply before performing any assembly or adjustment

Failure to do so could result in accidental started resulting in possible serious personal injury

MAINTENANCE

WARNING: To prevent serious injury from accidental operation Turn the Power switch of the tool to its "OFF" position and

unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

Cleaning

Clean out dust and debris from vents and electrical contacts by blowing with compressed air. Keep tool handles clean, dry

and free of oil or grease.

Certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline,

turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents , ammonia and household detergents containing

ammonia. Never use flammable or combustible solvents around tools.

WARNING: Tool service must be performed only by qualified repair personnel. Service or maintenance performed by

unqualified personnel could result in a risk of injury. If the tool does not work properly, return the tool to a service facility for

repairs.

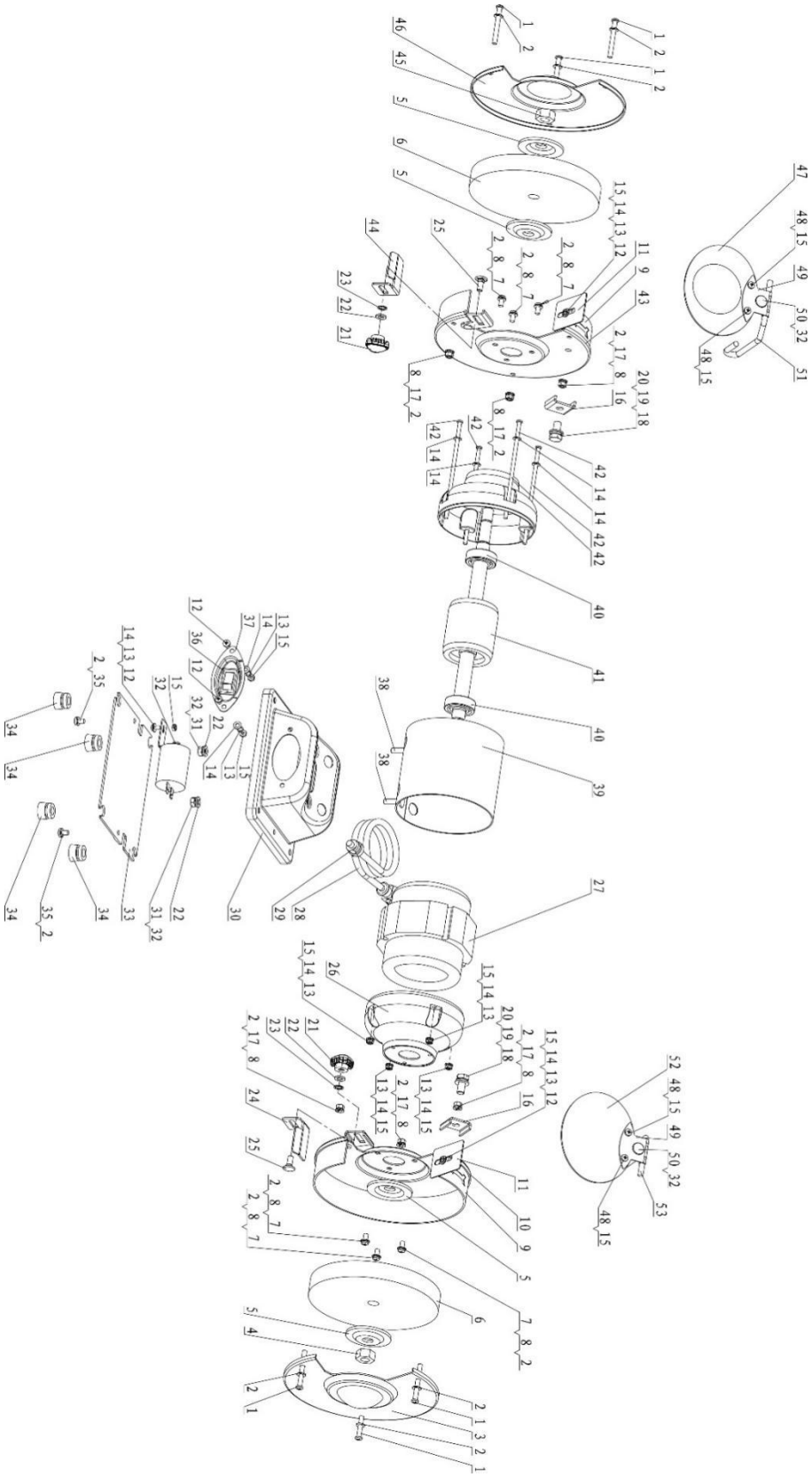
Lubrication

All of the bearings in this tool are lubricat- ed with a sufficient amount of high grade lubricant for the life of the unit under

normal operating conditions . Therefore, no further lubrication is required.

TROUBLESHOOTING		
Problem	Possible	Likely Solutions
Machine switched on but will not run	There is a break in the power supply to the machine The switch may be damaged	Check power at outlet Check that cord is plugged in
The electric motor becomes hot	The motor has become overloaded The motor is defective	Give the motor a chance to cool down Contact Customer Service @ 1-866-349-8665
Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.		

EXPLODED VIEW



PARTS LIST

WARNING! When servicing, use only original equipment replacement parts.
The use of any other parts may create a safety hazard or cause damage to the tool.
Any attempt to repair or replace electrical parts on this saw may create a safety hazard unless repairs are performed by a qualified technician. For more information, call the Toll-free Helpline, at 1-866-349-8665.
Always order by PART NUMBER, not by key number.

Key#	Part #	Part Name	Qty
1	1325-500-001	Screw MS x 45	6
2	1325-500-002	Flat pad 05	20
3	1325-500-003	Shield cover (right)	1
4	1325-500-004	Nut M12 (right)	1
5	1325-500-005	Chuck	4
6	1325-500-006	Grinding wheel	2
7	1325-500-007	Screw MS x 10	6
8	1325-500-008	Shells pad 05	12
9	1325-500-009	Hoarding	2
10	1325-500-010	Right guard bottom	1
11	1325-500-011	Block gray board	2
12	1325-500-012	Screw M4 x 8	4
13	1325-500-013	Shells pad 04	12
14	1325-500-014	Gasket 04	12
15	1325-500-015	Nut M4	16
16	1325-500-016	Goggles plate bracket	2
17	1325-500-017	Nut MS	6
18	1325-500-018	Hexagon screw MS x 16	2
19	1325-500-019	Shells pad 08	2
20	1325-500-020	Flat pad 08	2
21	1325-500-021	Handle nut M6	2
22	1325-500-022	Flat pad 06	4
23	1325-500-023	Tooth pad 06	2
24	1325-500-024	Tool Rest (R)	1
25	1325-500-025	Square neck screw M6 x 14	2
26	1325-500-026	Right cover	1
27	1325-500-027	Stator	1
28	1325-500-028	Power line	1
29	1325-500-029	Pull-off	1
30	1325-500-030	Base	1
31	1325-500-031	Shells pad 06	2

Key#	Part #	Part Name	Qty
32	1325-500-032	Nut M6	2
33	1325-500-033	Floor Base Plate	1
34	1325-500-034	Foot	4
35	1325-500-035	Screw M5 x 8	2
36	1325-500-036	Switch	1
37	1325-500-037	Switch panel	1
38	1325-500-038	Square neck screw M6 x 20	2
39	1325-500-039	Motor cylinder	1
40	1325-500-040	Bearing 6202	2
41	1325-500-041	Rotor	1
42	1325-500-042	Phillips screws M4 x 120	4
43	1325-500-043	Bottom left guard	1
44	1325-500-044	Tool rest (left)	1
45	1325-500-045	Nuts M12 (left)	1
46	1325-500-046	Shroud cover (left)	1
47	1325-500-047	Amplification goggles	1
48	1325-500-048	Screw M4 x 10	4
49	1325-500-049	Goggles fixed plate Shield Holder	2
50	1325-500-050	Screw M6 x 16	2
51	1325-500-051	eye shield bracket (left)	1
52	1325-500-052	Eye shield	1
53	1325-500-053	eye shield bracket (right)	1

WARRANTY

6" BENCH GRINDER

If this Radley tool fails due to a defect in material or workmanship within three years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. Two years for battery and charger. This warranty does not include expendable parts including but not limited to blades, brushes, belts, and light bulbs. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Radley product is used for commercial or rental purposes, this warranty does not apply.

6" Bench Grinder

3 Year Limited Warranty on tool

Radley®

RADLEY TOOLS
ST. JACOBS, ONTARIO N0B 2N0
© 2022 Home Hardware Stores Limited

1-866-349-8665
Customer Service/Tech Support

1325-500
Made in China

3 Year warranty

This Radley® product carries a three (3) year LIMITED warranty against defects in workmanship and materials. See Owner's Manual for full details.

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READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.

WEAR CSA APPROVED EYE PROTECTION

WEAR EAR PROTECTION

WEAR FACE PROTECTION