

Model G1037Z ***IMPORTANT UPDATE***

Applies to Models Mfd. Since March, 2017 and Owner's Manual Revised April, 2018

We recently made the following changes to the Model G1037Z:

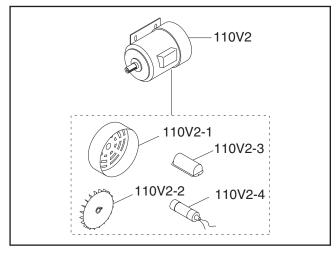
- Changed the motor.
- Updated wiring diagram.

These changes do not affect how the machine assembles or functions; however, the motor amperage has changed. This update includes new power supply circuit requirements, which must be used *instead* of those in the owner's manual.

Aside from the information contained in this update, all other content in the owner's manual applies to this machine. For your own safety, you MUST read and understand this update and the applicable owner's manual. **Keep this update for future reference!**

If you have any further questions about this manual update or the changes made to the machine, contact our Technical Support at (570) 546-9663 or email <u>techsupport@grizzly.com</u>.

New Motor Parts



REF	PART #	DESCRIPTION
110V2	P1037Z110V2	MOTOR 1-1/2HP 110V/220V 1-PH V2.05.11
110V2-1	P1037Z110V2-1	FAN COVER
110V2-2	P1037Z110V2-2	MOTOR FAN
110V2-3	P1037Z110V2-3	CAPACITOR COVER
110V2-4	P1037Z110V2-4	S CAPACITOR 300M 125V

Voltage Conversion

The voltage conversion MUST be performed by an electrician or qualified service personnel.

Note: If the diagram included on the motor conflicts with the one in the manual, the motor may have changed since the manual was printed. Use the diagram provided on the motor.

To convert the machine to 220V:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Replace the 5-15 plug on the power cord with a 6-15 plug.
- **3.** Re-wire the motor for 220V operation. (Refer to the diagram on **Page 4** of this update, or inside the motor junction box).

COPYRIGHT © JUNE, 2011 BY GRIZZLY INDUSTRIAL, INC., REVISED NOVEMBER, 2021 (BL) WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC. #BL14246 PRINTED IN TAIWAN

SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.



Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 110V...... 15 Amps Full-Load Current Rating at 220V....7.5 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

Circuit Information

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.

Note: Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.

Circuit Requirements for 110V

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage	110V/120V
Cycle	60 Hz
Phase	Single-Phase
Power Supply Circuit	
Plug/Receptacle	

Circuit Requirements for 220V

This machine can be converted to operate on a power supply circuit that has a verified ground and meets the requirements listed below. (Refer to **Voltage Conversion** instructions for details.)

Nominal Voltage	208V, 220V, 230V, 240V
Cycle	60 Hz
Phase	Single-Phase
Power Supply Circuit.	
Plug/Receptacle	NEMA 6-15



Grounding Requirements

This machine MUST be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

For 110V operation: This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug (see following figure). The plug must only be inserted into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances.

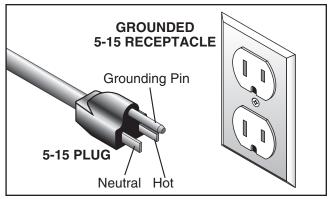


Figure 1. Typical 5-15 plug and receptacle.



For 220V operation: The plug specified under "Circuit Requirements for 220V" on the previous page has a grounding prong that must be attached to the equipment-grounding wire on the included power cord. The plug must only be inserted into a matching receptacle (see following figure) that is properly installed and grounded in accordance with all local codes and ordinances.

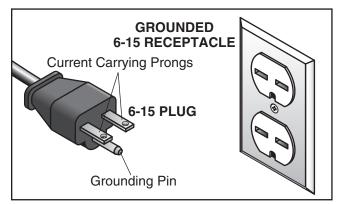


Figure 2. Typical 6-15 plug and receptacle.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

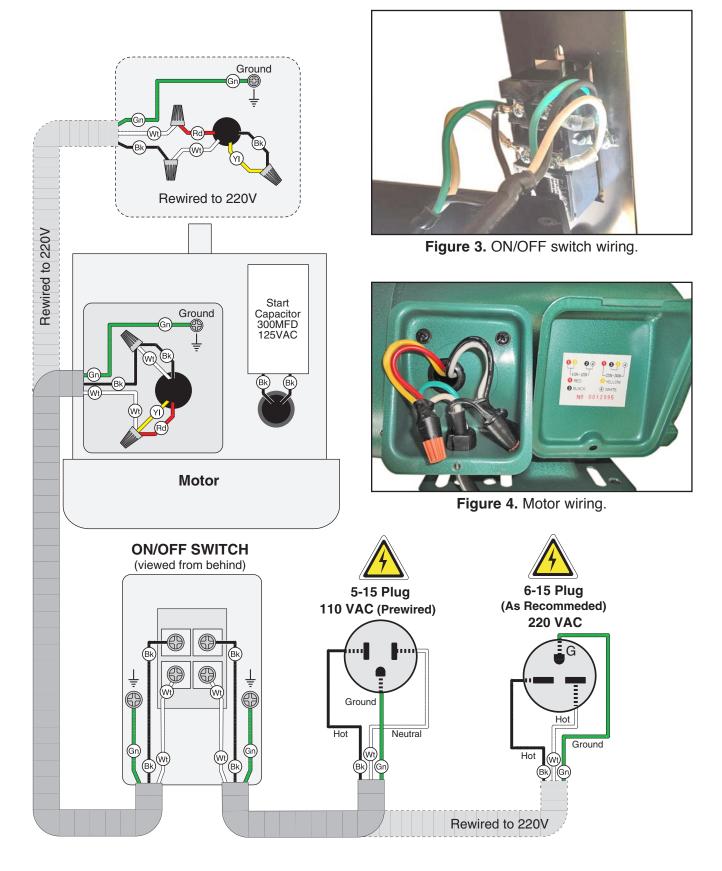
Extension cords cause voltage drop, which can damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

Minimum Gauge Size14 AWG Maximum Length (Shorter is Better)......50 ft.



Wiring Diagram





Model G1037Z (Mfd. 3/17)





13" PLANER/MOULDER MODEL G1037Z INSTRUCTION MANUAL



COPYRIGHT © JANUARY 2004 BY GRIZZLY INDUSTRIAL, INC. REVISED APRIL, 2018 (HE) WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC. #5698 PRINTED IN TAIWAN 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:

WARNING

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and 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.

Table Of Contents

SECTION 1: SAFETY	3
Safety Instructions For Power Tools	3
Additional Safety Instructions For Planer/Moulders	5
SECTION 2: INTRODUCTION	6
SECTION 3: CIRCUIT REQUIREMENTS	7
Amperage Draw	7
Circuit Breaker	7
Plug-Type	7
Circuit Capacity	8
Grounding	8
Extension Cords	8
Rewiring To 220V	
SECTION 4: MACHINE FEATURES	9
Common Terms & Definitions	9
SECTION 5: SET UP	
About This Section	10
Unpacking	10
Parts Inventory	
Hardware Recognition Chart	12
Site Considerations	13
Clean Up	13
Beginning Assembly	14
Stand	14
Mounting Planer/Moulder	16
Switch	16
V-Belts	
Pulley Cover	17
Dust Hood	18
Handwheel	18
Test Run	
Recommended Adjustments	
SECTION 6: OPERATIONS	
General	
Planing Tips	
Wood Species	
Depth of Cut	
Power Feed	
Thickness Planing	
Moulding Fences	
Bedboard	
Moulding Knives	
Moulding	
Edge Moulding	
SECTION 7: MAINTENANCE	
Maintenance Safety	
General	
Cleaning	
Lubrication	
V-Belts	
Anti-Kickback	29

Maintenance Notes	
SECTION 8: SERVICE ADJUSTMENTS	31
About Service	
Gauge Blocks	31
Knife Inspection	
Knife Sharpening	
Knife Setting Jig	
Knife Setting	34
Feed Roller Height	35
Feed Roller Pressure	
Thickness Scale	
Chip Deflector	
SECTION 9: REFERENCE INFO	38
General	
Aftermarket Accessories	
Machine Data Sheet	
G1037Z Parts Breakdown	41
Parts List	42
Troubleshooting Planer	44
Gauge Block Measurements	
Warranty and Returns	46

SECTION 1: SAFETY

For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, <u>WILL</u> result in death or serious injury.

AWARNING Indicates a potentially hazardous situation which, if not avoided, <u>COULD</u> result in death or serious injury.

Indicates a potentially hazardous situation which, if not avoided, <u>MAY</u> result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

AWARNING

Safety Instructions For Power Tools

- 1. KEEP GUARDS IN PLACE and in working order.
- 2. REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
- **3. KEEP WORK AREA CLEAN**. Cluttered areas and benches invite accidents.
- 4. NEVER USE IN DANGEROUS ENVIRONMENT. DO NOT use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.

- 5. KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept at a safe distance from work area.
- 6. MAKE WORKSHOP CHILD PROOF with padlocks, master switches, or by removing starter keys.
- 7. NEVER FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- 8. USE RIGHT TOOL. DO NOT force tool or attachment to do a job for which it was not designed.

G1037Z 13" Planer/Moulder

Safety Instructions For Power Tools

9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords LENGTH AMP RATING 25ft 50ft 100ft 0-6 16 16 16

7-10 14 16 16 16 14 11-12 16

14

12

10

13-16

17-20

21-30

12

12

10

12

10

No

- 10. WEAR PROPER APPAREL. DO NOT wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip 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 frees both hands to operate tool.
- 13. DO NOT OVER-REACH. 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. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- **16. REDUCE THE RISK OF UNINTENTIONAL** STARTING. On machines with magnetic contact starting switches there is a risk of starting if the machine is bumped or jarred. Always disconnect from power source before adjusting or servicing. Make sure switch is in OFF position before reconnectina.
- 17. 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.
- 18. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. DO NOT leave tool until it comes to a complete stop.
- **19. NEVER OPERATE A MACHINE WHEN** TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL. Full mental alertness is required at all times when running a machine.
- 20. NEVER ALLOW UNSUPERVISED OR **UNTRAINED PERSONNEL TO OPERATE** THE MACHINE. Make sure any instructions you give in regards to machine operation are approved, correct, safe, and clearly understood.
- 21. IF AT ANY TIME YOU ARE EXPERIENC-**ING DIFFICULTIES** performing the intended operation, stop using the machine! Then contact our service department or ask a gualified expert how the operation should

AWARNING

Additional Safety Instructions For Planer/Moulders

- 1. READ THIS ENTIRE MANUAL BEFORE TURNING THE PLANER/MOULDER *ON*.
- 2. ENSURE THAT THE MACHINE IS ON FLAT, STABLE GROUND BEFORE USE. Any "wobbles" must be corrected by shimming or blocking before operation.
- 3. DO NOT PLANE ANY MAN-MADE COM-POSITES such as plywood, hardboard, particle board, fiber board, flake board, fiberglass and/or any other material other than solid, natural wood fiber.
- 4. NEVER POSITION FINGERS OR THUMBS NEAR THE INFEED ROLLER.
- 5. ENSURE THAT THE PLANER/MOULD-ER IS PROPERLY ADJUSTED AND THAT THERE ARE NO LOOSE PARTS BEFORE OPERATING.
- 6. PLANE IN THE SAME DIRECTION AS THE GRAIN of the wood stock.
- 7. ALWAYS STAND TO THE SIDE OF THE PLANER/MOULDER while feeding the workpiece.
- 8. DO NOT LOOK INSIDE THE PLANER/ MOULDER during operation!
- 9. DO NOT REMOVE MORE THAN ¹/₈" FROM THE SURFACE OF THE WOOD STOCK IN A SINGLE PASS.

WARNING

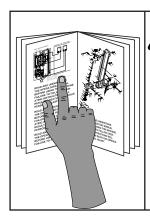
Like all machines there is danger associated with the Model G1037Z. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

- 10. ALWAYS PROVIDE ADEQUATE IN-FEED AND OUTFEED SPACE WHEN OPERATING THE PLANER/MOULDER. Always support long pieces of stock on both sides of the planer/moulder.
- 11. INSPECT YOUR STOCK BEFORE PLAN-ING. Never plane stock with nails, staples or other foreign objects which may be embedded in the surface. Do not plane lumber with loose knots or knots that may become loose during planing.
- 12. DO NOT ATTEMPT TO REMOVE JAMS UNTIL POWER IS DISCONNECTED and all moving parts have come to a complete stop.
- 13. DO NOT PLANE WORKPIECES LESS THAN 8" LONG AND ³/₈" THICK.
- 14. DO NOT OPERATE PLANER/MOULDER WITH DULL OR DAMAGED KNIVES.
- **15. ALWAYS UNPLUG THE PLANER/ MOULDER** whenever making any adjustments or changing knives.
- 16. IF AT ANY TIME YOU ARE EXPERIENC-ING DIFFICULTIES PERFORMING THE INTENDED OPERATION, STOP USING THE PLANER/MOULDER! Then contact our service department or ask a qualified expert how the operation should be performed.

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

SECTION 2: INTRODUCTION

Commentary



Lack of familiarity with this manual could cause serious personal injury. Become familiar with the contents of this manual, including all the safety warnings.

We are proud to offer the Model G1037Z 13" Planer/Moulder. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of troublefree, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G1037Z. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible. If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc. ^c/_o Technical Documentation P.O. Box 2069 Bellingham, WA 98227-2069 Most importantly, we stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

> Grizzly Industrial, Inc. 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: (570) 546-9663 Fax: (800) 438-5901 E-Mail: techsupport@grizzly.com Web Site: http://www.grizzly.com

The specifications, drawings, and photographs illustrated in this manual represent the Model G1037Z as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at <u>www.grizzly.com</u>. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!



SECTION 3: CIRCUIT

Amperage Draw

The Model G1037Z features a 110V/220V motor that is prewired at 110V.

Amperage Draw

110V (prewired)	18 Amps
220V	. 9 Amps



Use the following guidelines when choosing a circuit breaker (circuit breakers rated any higher are not adequate to protect the circuit):

Circuit Breaker

110V (prewired)	20 Amp, 1 Pole
220V	10 Amp, 2 Pole

Plug-Type

The cord set enclosed is equipped with a NEMA 5-15 plug (**Figure 1a**).

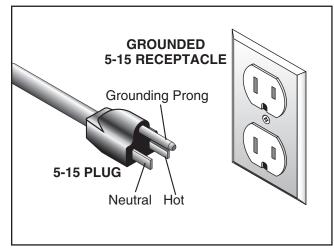
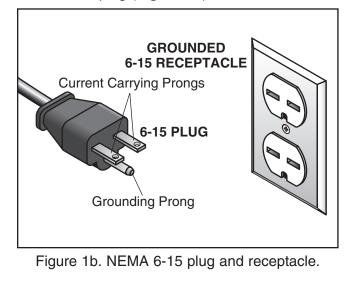


Figure 1a. NEMA 5-15 plug and receptacle.

If the jointer is rewired to operate on a 220V power source, the plug must be replaced with a NEMA 6-15 plug (**Figure 1b**).



Circuit Capacity

Always check to see if the wires in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician.

If the circuit breaker trips or the fuse blows regularly, your machine may be operating on a circuit that is close to its amperage draw capacity. However, if an unusual amperage draw does not exist and a power failure still occurs, contact a qualified electrician.





Electrocution or a fire can result if the machine is not grounded correctly. Make sure all electrical circuits are grounded. DO NOT use the machine if it is not grounded.

NOTICE

The wire on the power cord with green or green and yellow striped insulation is the grounding conductor.

In the event of an electrical short, grounding reduces the risk of electric shock by providing a path of least resistance to disperse electric current. This tool is equipped with a power cord that has an equipment-grounding prong. The outlet must be properly installed and grounded in accordance with all local codes and ordinances.



Extension Cords

Because of the high amperage draw from this machine, we do not recommend the use of extension cords. Instead, position your equipment near installed wiring to eliminate the need for extension cords.



Rewiring To 220V

The motor must be rewired to handle the 220V power source. The correct wiring configuration can be found in **Figure 2**, as well as on the inside of the motor wire cover.

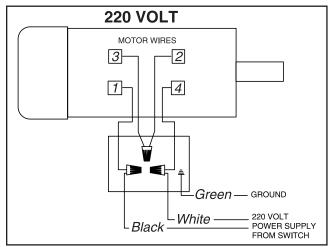


Figure 2. 220V wiring diagram.

This procedure takes moderate electrical skill and the rewiring job should be inspected by a licensed electrician before turning the machine *ON*.



SECTION 4: MACHINE FEATURES

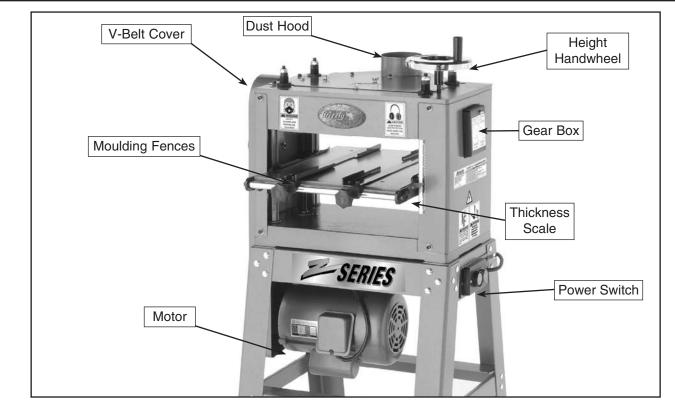


Figure 3. Machine features.

Common Terms & Definitions

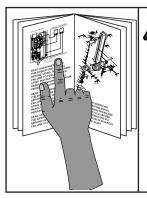
- **Work Table:** The wood moves through the planer/moulder on the work table.
- Infeed and Outfeed Rollers: Powered rollers that move the wood through the planer/mould-er.
- **Cutterhead:** The cutterhead holds the knives and spins at 5000 rpm.
- **Dust Hood:** Funnels wood dust and chips into an attached dust collection system.
- **Gibs:** Metal strips that hold the planer/moulder knives in place.
- **Gib Bolts:** Secures the gib to the knife to keep it in place.
- **Snipe:** A gouge at the end of the board.



SECTION 5: SET UP

About This Section

The purpose of this section is to guide you through the required steps to get your machine out of its packaging and into operating condition.



This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



Wear safety glasses during the entire set up process!

Unpacking

The Model G1037Z was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, please immediately call Customer Service at (570) 546-9663 for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of your shipment, you should inventory the parts.



Parts Inventory

The following is an inventory of the loose parts for your new Model G1037Z Planer/Moulder.

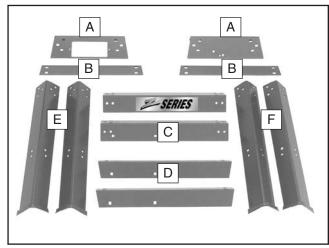


Figure 4. Stand parts.

А. В.	SCRIPTION Upper Side Brace Lower Side Brace Upper End Brace	2
	Lower End Brace Leg E	

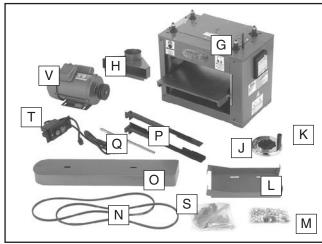
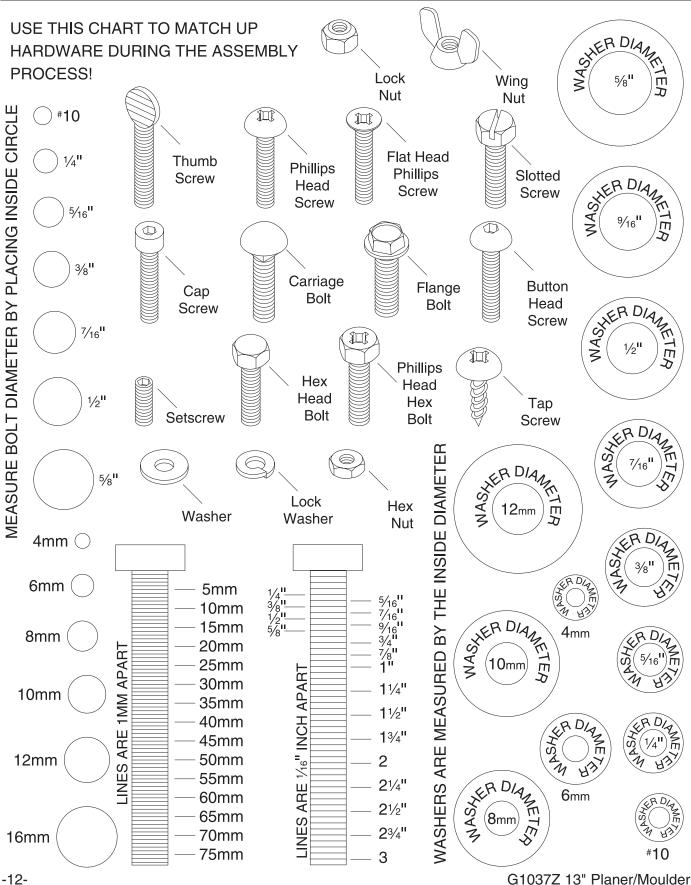


Figure 5. G1037Z loose parts.

G.	Moulder/Planer 1
Н.	Dust Hood 1
I.	Dust Hood Hardware Bag (Not Shown)1
	— Cap Screw M58 x 8
	— Lock Washer M5 3
	— Cap Screw M6-1.0 x 12 1
	— Lock Washer M6 1

J.	Handwheel	
Κ.	Handwheel Handle w/ Shaft	1
L.	Motor Mount	
М.	Stand Hardware Bag	1
	— Carriage Bolt 5/16"-18 x 1/2"	
	— Carriage Bolt 5/16"-18 x 3/4"	4
	— Hex Nut ⁵ /16"-18	. 50
	— Flat Washer M8	
	— Lock Washer M8	
	— Cap Screw M8-1.25 x 20	
	— Stud	
	— Knob (Female)	
	— Wire Clip	
N.	V-Belt	
0.	Pulley Cover	
Ρ.	Moulding Fence	
Q.	Moulding Fence Guide Rod	
R.	Moulding Fence Hardware Bag	
	- Bracket	
	- Locking Knob (Male) M6-1 x 20	
	— Cap Screw M6-1 x 20	
	— Cap Screw M6-1 x 10	
	— Flat Washer 6mm	
	— Lock Washer 6mm	6
	- Clamping Block	2
S.	Tool Bag	1
	- Combo Wrench 10/12mm	1
	- Combo Wrench 11/13mm	
	- Combo Wrench 17/32mm	
	— Hex Wrench 6mm	
	— Hex Wrench 5mm	
	— Hex Wrench 4mm	
	— Hex Wrench 3mm	
	— "L" Gauge	
	- Screwdriver	
_	— Drift	
	110V Switch	
U.	Switch Hardware Bag (Not Shown)	
	- Phillips Head Screw M47 x 15	
	— Flat Washer 4mm	
	— Hex Nut M47	
	Motor	
	Change Gears-20T & 57T (Not Shown)	
х.	Knife Jig Bag (Not Shown)	
	- Knife Jig Foot	
	- Knife Jig Shaft	
	— E-Clip	4

Hardware Recognition Chart



Site Considerations

Floor Load

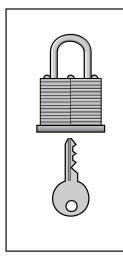
The Model G1037Z weighs 240 lbs and has a $21\frac{1}{4}$ " x $22\frac{1}{4}$ " footprint. Most commercial floors are suitable for this machine. Some residential floors may require additional reinforcement to support both the machine and operator.

Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for the machine.

Lighting And Outlets

Lighting should be bright enough to eliminate shadows and prevent eye strain. Electrical circuits should be dedicated or large enough to handle combined motor amp loads. Outlets should be located near each machine so power or extension cords are not obstructing high-traffic areas. Be sure to observe local electrical codes for proper installation of new lighting, outlets, or circuits.



Unsupervised children and visitors inside your shop could receive serious personal injury. Ensure child and visitor safety by keeping all entrances to the shop locked at all times. DO NOT allow unsupervised children or visitors in the shop at any time.



The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact.

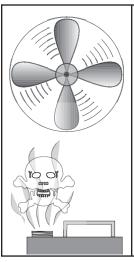


Gasoline and petroleum products have low flash points and could explode if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.



Smoking near solvents could ignite an explosion

could ignite an explosion or fire and cause serious injury. DO NOT smoke while using solvents.



Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.

Beginning Assembly

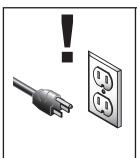
Stand

This section covers the basic assembly and adjustment instructions needed to begin operation. Complete the assembly in the order provided in this manual and then read the remaining portion of the manual before attempting any type of operation.

Your safety is important! Please follow the warnings below during this entire section:



WARNING Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.



WARNING **Disconnect power to the** machine during the entire assembly process. Failure to do this may result in serious

Sharp edges on metal parts may cause personal injury. Examine the edges of all metal parts before handling.

personal injury.

Components and Hardware Needed: Leg F2

Qtv

Upper Side Braces	2
Motor Mount	1
Carriage Bolts 5/16"-18 x 1/2"	44
Carriage Bolts 5/16"-18 x 3/4"	4
Hex Nuts 5/16"-18	48
Flat Washers 5/16"	48
Lock Washers 5/16"	4
Motor	1

Tools Needed:

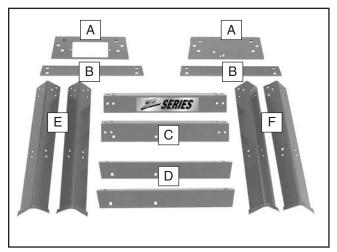


Figure 6. Stand Components.

To assemble the stand:

 Bolt the upper (A) and lower (B) side braces to the legs E & F using 20 carriage bolts, with flat washers and 20 hex nuts as shown in Figure 7. Do not fully tighten the bolts.



Figure 7. Partially assembled stand.

Attach the upper (C) and lower (D) end braces (2 each) to the inside of the assembled legs using 10 carriage bolts, 10 flat washers and 10 hex nuts as shown in Figure 8. Note-The upper side brace (A) overlaps the top of the upper end brace (C).



Figure 8. Side braces attached to one of the stand assemblies.

3. Bolt the stand assemblies together using 10 carriage bolts, 10 flat washers and 10 hex nuts. Do not fully tighten the bolts.

4. Attach the motor mount on the end that does not have a Z series label as shown in **Figure 9**. Use 4 carriage bolts, 4 flat washers and 4 hex nuts. Insert the carriage bolts from the top of the end brace.



Figure 9. Motor mounting plate.

- 5. Lay the stand assembly down on blocks with the motor mount on the bottom.
- 6. Place the motor on the motor mount and line up the holes. The pulleys must extend beyond the stand as shown in **Figure 10.**

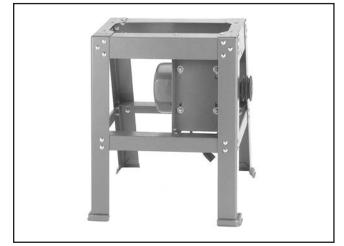


Figure 10. Attaching the motor

- 7. Bolt the motor to the motor mount using the ³/₄" carriage bolts, the 4 large flat washers, 4 lock washers and 4 hex nuts. Do not fully tighten the bolts.
- 8. Tilt the stand upright.

Mounting Planer/ Moulder

Components and Hardware Needed:

Planer/Moulder Unit	1
Assembled Stand	1
Cap Screw M8-1.25 x 20	4
Lock Washer 8mm	4

Tools Needed:

To mount the planer/moulder:

1. Place two 2x4 boards under the cutterhead of the planer/moulder unit. Note—*Make sure that the boards are long enough so that they protrude from the planer/moulder at least 16" on each side.*



- 2. With one person on the end of each 2x4, carefully lift the planer/moulder unit onto the stand.
- **3.** Line up the holes in the top of the stand with the holes under the planer/moulder unit.
- **4.** Attach the planer/moulder to the stand with 4 cap screws and 4 washers.
- **5.** Tighten down the carriage bolts on the stand that were finger tightened in the previous section.

Switch

Components and Hardware Needed:	
Phillips Head Screw M47 x 15	
Flat Washer	
Hex Nut M47	2

Tools Needed:

Qtv

Screwdriver	1
8mm Wrench (Not included)	1

To install the ON/OFF Switch:

- 1. Put the female plug through the hole and place the switch assembly in the stand.
- 2. Thread the two Phillips head screws through the switch assembly and stand, and into the two hex nuts and washers. Hold the nuts on the inside of the stand with the 8mm wrench and tighten with the screwdriver as shown in Figure 11.

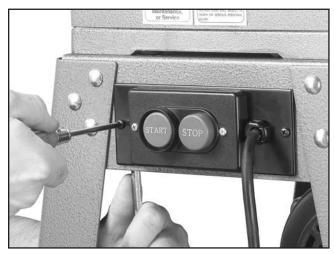


Figure 11. Switch installation.

3. Connect the male plug from the motor to the female plug from the switch.



Components and Hardware Needed:	Qty
V-Belt	2

To check belt tension, push the V-belt at its midpoint with moderate finger pressure. You should be able to deflect each V-belt about $\frac{1}{2}$ ".

To install and tension the V-belt:

- **1**. Loosen the motor mounting bolts.
- 2. Hook the belt on the lower pulley and roll the belt onto the upper pulley. Move the belt to the back pulley slot and install the second belt.
- **3.** Tension the the belt by prying on the motor assembly with a wooden bar as shown in **Figure 12**.



Figure 12. Tensioning belts.

- **4.** Hold the tension with the wooden bar and tighten the motor bolts.
- 5. Check the tension and repeat steps 2 & 3 if necessary.

Pulley Cover

Components and Hardware Needed:	
Knob (Female)	2
Stud	2
Flat Washer 5/16"	2
Hex Nut ⁵ /16"-18	2
Pulley Cover	1

Tools Needed:

10/12mm	Combo	Wrench		2
---------	-------	--------	--	---

The pulley cover is important to prevent personal injury and to prevent damage to the V-belts

To install the pulley cover:

 Thread the studs into the holes in the planer/ moulder unit and stand as shown in Figure 13.

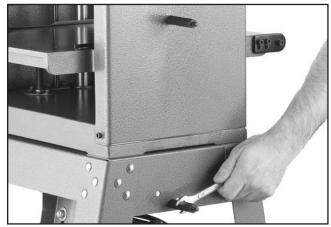


Figure 13. Installing studs

- 2. Secure the studs on the inside of the stand with the hex nuts.
- **3.** Place the pulley cover over the studs and secure with the knobs.

Dust Hood

Components and Hardware Needed:	Qty
Dust Hood	1
Cap Screw M58 x 8	3
Elot Weeber Emm	2

	2
Cap Screw M6-1.0 x 12 1	l
Flat Washer 6mm 1	l

Tools Needed:

Hex Wrench 4mm	. 1
Hex Wrench 5mm	. 1

It is important to connect the planer /moulder to a dust collection system to reduce the health risks associated with airborne wood dust.

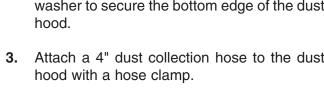
To install the dust hood:

1. Slide the dust hood under the chip guard bracket and bolt together using the M5-.8 x 8 cap screws and 5mm flat washers. See Figure 14.



Figure 14. Dust hood installed.

- Use the M6-1.0 x 12 cap screw and 6mm flat 2. washer to secure the bottom edge of the dust hood.
- Attach a 4" dust collection hose to the dust hood with a hose clamp.





Components and Hardware Needed: Handwheel Handwheel Handle	1
Tools Needed:	

Screwdriver1

The handwheel is used to raise and lower the planer/moulder work table.

To install the handwheel:

Place the handwheel over the shaft shown in 1. Figure 15. Rotate the handwheel until the pin in the shaft slides into the groove in the handwheel.

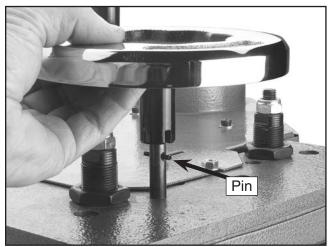


Figure 15. Installing handwheel.

2. Place the handle shaft through the handle and screw it into the handwheel with the screwdriver.

Test Run

Once the assembly is complete, you need to test run the machine to check for any problems

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, feel free to contact our service department for help.



Loose hair and clothing could get caught in machinery causing serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.



AWARNING Projectiles thrown from

the machine could cause serious eye injury. Wear safety glasses during assembly and operation.

Starting the machine:

- 1. Read the entire instruction manual.
- 2. Make sure all tools and foreign objects have been removed from the machine.
- **3.** Plug the machine into the power source.
- 4. Press the ON button. Make sure that your hand stays poised over the switch in case you need to quickly turn the machine OFF.
- 5. Listen to and watch the planer/moulder for abnormal noises or actions. The machine should run smoothly with little or no vibration. Strange or unnatural noises should be investigated and corrected before operating the machine further—always unplug the machine when investigating or correcting any situation with the machine.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory and no further setup is required to operate your machine.

However, because of the many variables involved with shipping, we recommend that you at least verify the following adjustments to ensure the best possible results from your new machine.

Step-by-step instructions on verifying these adjustments can be found in *Section 8: Service Adjustments*.

Factory adjustments that should be verified:

- 1. Knife Setting (page 34)
- 2. Feed Roller Height (page 35)
- 3. Feed Roller Pressure (page 36)
- 4. Thickness Scale (page 36)
- 5. Chip Deflector (page 37)



G1037Z 13" Planer/Moulder

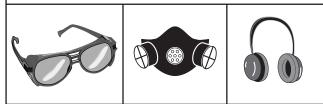
SECTION 6: OPERATIONS

General

Your safety is important! Please follow the warnings below during this entire section:

WARNING

Damage to your eyes, lungs, and ears could result from failure to wear safety glasses, a respirator, and hearing protection while using this machine.





Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

Planing Tips

- Surface one face on a jointer if your stock is twisted or cupped.
- Scrape all glue off when planing glued-up panels.
- DO NOT plane more than one piece at a time.
- DO NOT remove more than ¹/₈" (3.2mm) of material on each pass. Remove less material on each pass when planing wide or dense stock.
- Use the 12 FPM feed speed for a smoother finish.
- Remove less material on each pass for a smoother finish.
- Support the workpiece on both ends. Get assistance if you are planing long lumber, or use roller stands to support the workpiece.
- Measure the workpiece thickness with calipers to get exact results.
- Carefully inspect all stock to make sure it is free of large knots or foreign objects that may damage your blades.
- When possible, plane equal amounts on each side of the board to reduce the chance of twisting or cupping.
- Use the entire width of the planer to wear knives evenly.
- Always plane WITH the grain direction of the wood. Never plain cross-grain or end-grain.
- Always feed multiple pieces of stock end to end to reduce snipe.



Wood Species

The species of wood, as well as its condition, have a dramatic effect on planing ability. The harder the wood (as illustrated by its shear strength), the more difficult it will be to plane. Harder wood will require a slower feed speed or a series of lighter cuts, or both.

A brief listing of common hard and soft woods in relation to their shear strengths and planing difficulty is listed below.

	Туре	Shear (PSI)
Increasing Difficulty	Black Locust Sugar Maple Pecan Hickory White Oak White Ash Black Cherry American Elm Black Walnut Red Alder Basswood Cottonwood	2,480 2,330 2,080 2,000 1,950 1,700 1,510 1,370 1,080 980 930
	Туре	Shear (PSI)

	Type Sł	near (PSI)
Difficulty	Western Larch Tamarack Douglas Fir Alaska Cedar Sitka Spruce Sugar Pine Cypress Redwood (OG) Red Cedar White Pine Balsam Fir	1,410 1,280 1,160 1,130 1,150 1,050 1,000 940 860 850 710

Depth of Cut

The depth of cut is controlled by the handwheel on top of the planer. Turning the handle clockwise raises the work table and turning it counterclockwise lowers the work table. Depth-of-cut is read directly from the inch/millimeter scale located on the right-hand side of the planer. See **Figure 16**.

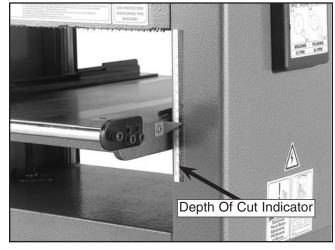


Figure 16. Depth of cut scale and indicator.

One complete turn of the handle raises or lowers the work table approximately $\frac{5}{64''}$ (2mm). The range of material thickness that can be planed is $\frac{3}{8''}$ - 6'' (9.5mm - 152mm).

The maximum depth-of-cut varies according to the hardness of the wood and how wide of a board is being passed under the cutterhead. Generally, we recommend a maximum depth of no more than $\frac{1}{16}$ ". A series of light cuts will give a better end result than trying to take off too much material in a single pass, plus there is less strain on the motor.

Tools Needed:

Hex Wrench 5mm1		
Combo Wrench 10/12mm 1		

The power feed has a two speed gearbox that uses a 31/46T gear combination to plane at 24 FPM, and a 20/57T gear combination to feed the workpiece at 12 FPM for a finer finish when planing or moulding.

To change the power feed speed:

- 1. Disconnect the machine from the power source!
- 2. Remove the gearbox cover with the 10/12mm Combo Wrench.
- **3.** Remove the cap screws that hold the gears on their shafts with the 5mm Hex Wrench.
- 4. Put the other set of gears on the shafts and tighten down the cap screws.
- 5. Replace the gearbox cover.

Thickness planing sizes material and creates a smooth surface parallel with the opposite side of the board. It does not remove twisting, warping, or cupping. If these conditions exist, joint the workpiece before using the planer.

Thickness Planing

To perform thickness planing operations:

1. Raise the work table to the height of the thickest part of the board.

Always stand to one side of the machine to avoid kickback. Always wear proper eye protection.

- 2. Turn the planer/moulder *ON*. Stand to the side and feed the wood into the planer/ moulder. Note—*Always plane with the grain of the wood*.
- **3.** Support the infeed end of the board until half of the board has been fed into the planer/ moulder, then walk around to the outfeed side and support the other end of the board.
- 4. Raise the work table a maximum of ¹/₈". Note—*Remove less material in wide or dense stock.*
- 5. Flip the stock end for end and feed into the planer upside down. Note—*This ensures the other side of the board is planed with the grain.*
- 6. Measure the thickness of the board. Repeat **steps 2-5** until the desired thickness is reached.

Moulding Fences

Components and Hardware Needed: Qty

Moulding Fence	2
Moulding Fence Guide Rod	1
Bracket	2
Locking Knob (Male) M6-1 x 20	2
Cap Screw M6-1 x 20	6
Cap Screw M6-1 x 10	4
Flat Washer 6mm	6
Lock Washer 6mm	6
Clamping Block	2

Tools Needed:

Hex Wrench 5mm1	1
-----------------	---

The moulding fences align the workpiece with the moulding knives.

To install the moulding fences:

- 1. Disconnect the machine from the power source!
- 2. Bolt the moulding fences to the clamping blocks with the M6-1 x 10 cap screws and lock washers.
- **3.** Screw the locking knobs into the clamping blocks.

4. Install the fence rod guide brackets onto the edge of the work table with 4 cap screws and flat washers as shown in **Figure 18**. Do not tighten the cap screws at this time.

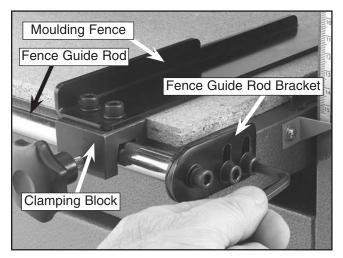


Figure 18. Fence rod brackets

- 5. Slide the fence rod between the brackets and thread the remaining cap screws, with flat washers and the lock washers, into the ends.
- 6. Place the moulding fences over the fence rod and tighten the locking knob.
- 7. Adjust the fence rod brackets until the fences lie flat on the surface of the bedboard or work



Bedboard

Components and Hardware Needed:	Qty
1/4" to 1/2" Plywood or MDF (Not included)	1
1/2" Screws (Not included)	4
Washers (Not included)	4

Tools Needed:

Screwdriver1
Saw (Not included)1
5mm Hex Wrench 1

A bedboard is essential to prevent the moulding knives from coming into contact with the work table and damaging the moulding knives, cutterhead, and work table.

To build the bedboard:

- 1. Cut $\frac{1}{4}$ " $\frac{1}{2}$ " thick plywood or MDF that has a smooth surface to 13"W x 17 $\frac{3}{4}$ "L.
- 2. Center the bedboard on the work table. Fasten the bedboard to the work table from underneath with the screws and washers.
- **3.** Loosen the fence rod brackets shown in **Figure 19** and slide the brackets up. Finger tighten the cap screws.

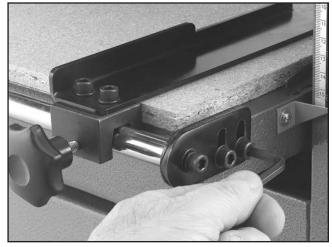


Figure 19. Fence rod brackets

- 4. Install the fence rails.
- **5.** Adjust the fence rod brackets until the fences lie flat on the surface of the bedboard and tighten the cap screws.

Moulding Knives

Components and Hardware Needed:	Qty
Moulding Knives (Not included)	3

Tools Needed:

Hex Wrench 4mm1	
Drift1	
"L" Gauge1	

Moulding cutter knives are available in many sizes and profiles in the Grizzly catalog. Knives that are larger than 2" wide are generally $\frac{1}{4}$ " thick and come with their own set of gibs. The knives that are less than 2" wide will be $\frac{1}{8}$ " thick and use the included gibs.



Moulding knives and planer knives are extremely sharp. Handle with care.

To install the moulding knives:

- 1. Disconnect the machine from the power source!
- 2. Loosen the wing nuts holding the chip guide and slide the chip guide towards the infeed side of the planer/moulder. Tighten the wing nuts.
- **3.** Remove the dust collection assembly and the chip deflector.
- 4. Set the feed speed to 12 FPM. (See pg 22)
- 5. Loosen the set screws that secure the gibs with the 4mm Hex wrench. If you are using moulding knives that are smaller than 2" only loosen the gibs on the center section. For moulding knives larger than 2" loosen all the gibs in the cutterhead slot.

6. Use the brass drift or a small piece of wood to tap the gibs down into the cutterhead slot as shown in **Figure 20**.

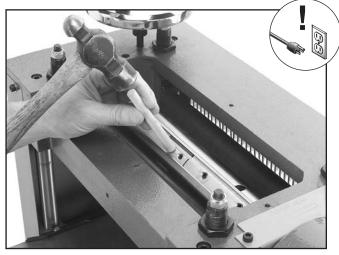


Figure 20. Loosening the gibs.

7. For smaller knife sets only remove the center spacers. For larger knife sets remove the gibs, spacers and planer knives. Note—*The planer knives remain in place when using knives under 2*". See **Figure 21**.

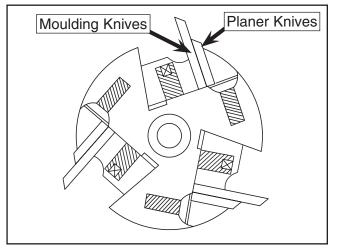


Figure 21. Cutterhead and knives

- 8. Replace the center spacers with the small knives and tighten the set screws on the spacer gibs. With the larger knives, use the gibs included with the knife set.
- 9. Make sure the knives are set to the bottom of the cutterhead slot and face the direction shown in Figure 21.

10. Attach the orange "L" gauge to the top of the planer as shown in **Figure 22**. Adjust it to touch the edge of the moulding knife and tighten the hex bolt.

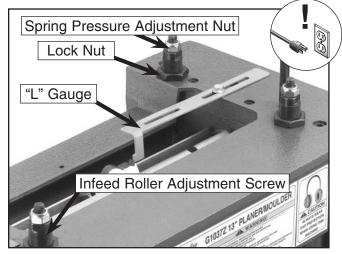


Figure 22. Using the orange "L" gauge.

- **11.** Tighten the gib set screws uniformly just enough to keep the moulding knives from moving.
- **12.** Rotate the cutterhead and repeat **steps 7-11** for the other two knives. Set the knives so they butt up against the orange "L" gauge.
- **13.** Tighten all the gibs in each cutterhead slot $\frac{1}{2}$ turn. Repeat until all the gibs are tight.
- 14. Check the spring pressure. The nut called out in **Figure 22** should be no more than 4 threads from the top of the threaded rod.
- **15.** Rotate the knives to face down and raise the table until $\frac{1}{3}$ of the knife profile covers the end of the stock.
- **16.** Loosen the lock nuts and uniformly rotate the infeed roller adjustment screws until the infeed roller comes into contact with the stock.
- **17.** Adjust the outfeed roller adjustment screw and turn the table height handle a ½ turn to set the preload.
- **18.** Re-install the dust collection assembly.
- **19.** Run the machine for five minutes without moulding any stock. Re-tighten the gibs.

Moulding

Removing more than $\frac{1}{8}$ " off the overall profile of the moulding can break the knives, resulting in serious damage or injury.

To perform moulding operations:

- 1. Plane stock to within ¹/₁₆" of the final thickness. Cut the width to within ¹/₈" of the final profile if both edges are trimmed by the knives. Cut to the final width if only the face is profiled.
- **2.** Align the fence rails with the edges of the profile knives.

WARNING

Always stand to one side of the machine to avoid kickback. Always wear proper eye protection.

- **3.** Turn the planer/moulder *ON*. Stand to the side and feed a test piece into the planer/ moulder. Note—*Always plane WITH the grain of the wood.*
- **4.** Raise the table until the test piece feeds smoothly into the planer/moulder.
- 5. Support the infeed end of the board until half of the board has been fed into the planer/ moulder, then walk around to the outfeed side and support the other end of the board.
- 6. Run all the moulding through the planer/ moulder at this table height.
- 7. Raise the table and run all the moulding through the planer/moulder again. You should be able to cut the profile in 2-3 passes depending on the type of wood and the profile of the cutter.

Edge Moulding

Components and Hardware Needed:	Qty
Fence Rail Material (Not included)	2

Tools Needed:

C-Clamps (Not included) 4

To perform edge moulding operations:

1. Disconnect the machine from the power source!

2. Build wooden fence rails that are ³/₄" shorter than the work piece and the same length as the work table as shown in **Figure 23**.

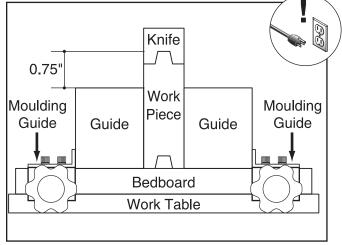


Figure 23. Edge moulding fences.

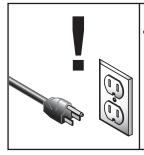
- **3.** Raise the table until a knife that is at bottom dead center is below the height of the wooden fence rails.
- 4. Align the fence rails to the knives by sliding the wooden fence rails against the knife edge with the metal fence rails. Tighten the lock knob on the metal fence rails.
- 5. Clamp the wooden fence rails to the table with C-clamps, or screw the wooden fence rails to the bedboard.
- 6. Adjust the feed rollers as described in **steps** 15-17 on **page 25**.
- 7. Operate as described in the **Moulding** section.



SECTION 7: MAINTENANCE

Maintenance Safety

Your safety is important! Please follow the warnings below during this entire section:



Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.



Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.



Projectiles from the machine could cause serious eye injury. Wear safety glasses at all times.

General

Regular periodic maintenance on the Model G1037Z will ensure optimum performance. Make a habit of inspecting the machine each time you use it.

Before each use, look for the following conditions:

- 1. Loose or damaged moulder or planer knives.
- 2. Loose bolts.
- 3. Worn switch.
- 4. Worn or damaged cords and plugs.
- 5. Damaged V-belt.



The table and other non-painted surfaces on your machine should be protected against rust and pitting. Wiping the table clean after every use ensures that moisture from wood dust does not remain on bare metal surfaces.

Tables can be kept rust-free with regular applications of products like SLIPIT[®] or Boeshield[®] T-9. For long term storage you may want to consider products like Kleen Bore's Rust Guardit[™].



Cleaning

Build up of sawdust and other debris can cause your machine to plane and mould inaccurately.

The following should be cleaned regularly:

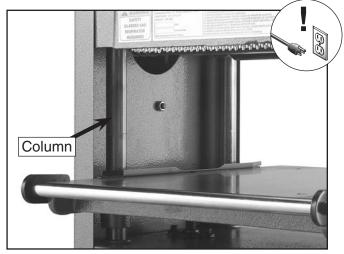
- 1. Disconnect the machine from the power source!
- 2. Vacuum or wipe sawdust and debris from the machine after each use.
- 3. Wipe down feed rollers after each use.
- 4. Remove accumulations of resin from the knives, rollers and bed with a non-flammable solvent such as a saw blade cleaner.

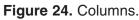
Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. DO NOT lubricate them.

The following is a list of features and parts that need lubrication:

Columns—The four columns should be lubricated with light machine oil once a week. See **Figure 24**.





Lead Screws—The two lead screws shown in **Figure 25** should be lubricated with general purpose grease once a month.

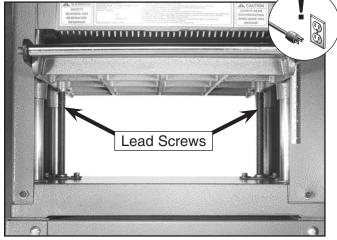


Figure 25. Lubricating the lead screws.

Chain—The table height adjustment chain should be inspected monthly and lubricated with general purpose grease when needed

Feed Roller Chain and Gears—The drive chain should be inspected and lubricated monthly. Use a general purpose grease. Check the sprocket, the chain and the cotter pin during inspection. Some chains will have master links instead of cotter pins.



V-Belts

To ensure optimum power transmission from the motor to the blade, the V-belts must be free from cracks, fraying and wear. Check the V-belts at least every 3 months; more often if the planer/ moulder is used daily.

To check belt tension, push the V-belt at its midpoint with moderate finger pressure. You should be able to deflect each V-belt about $\frac{1}{2}$ ".

To tension the V-belt:

- 1. Disconnect the machine from the power source!
- 2. Remove the pulley cover and loosen the motor mounting bolts.
- **3**. Hook the new belt into the lower pulley, hold the belt partially into the upper pulley and rotate the pulleys to roll the belt into place.
- 4. Tension the belt by prying on the motor assembly as shown in Figure 26.

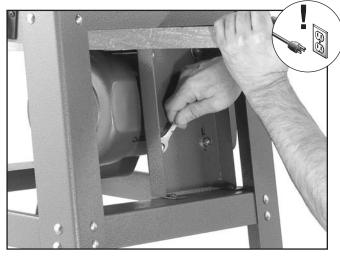


Figure 26. Tensioning Belt.

- 5. Hold the tension with the wooden bar and tighten the bolts loosened in **step 2**.
- 6. Squeeze the belts to check the tension and repeat **steps 2-5** if necessary.
- 7. Replace the pulley cover.

The anti-kickback fingers hang from a rod suspended across the front of the cutterhead casting. Check the fingers to ensure that they swing freely and easily. See **Figure 27.**

DO NOT

apply oil or other lubricants to the antikickback fingers. Oil or grease will attract dust and restrict movement of the fingers, which could result in damage to your workpiece, the planer/moulder, or possibly seri-



Figure 27. Anti-kickback fingers.



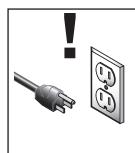
G1037Z 13" Planer/Moulder

Maintenance Notes

Date	Approximate Hours Of Use	Maintenance Performed

Q

SECTION 8: SERVICE ADJUSTMENTS



WARNING

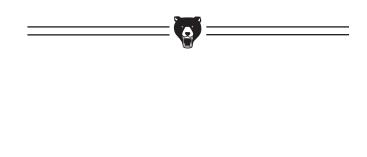
Always disconnect power to the machine before performing service adjustments. Failure to do this may result in serious personal injury.

About Service

This section is designed to help the operator with adjustments that were made at the factory and that might also need to be made during the life of the machine.

This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If any adjustments arise that are not described in this manual, then feel free to call the Grizzly Service Department at (570) 546-9663.

Similarly, if you are unsure of how to perform any procedure in this section, the Grizzly Service Department will be happy to guide you through the procedures or help in any other way.



Gauge Blocks

Before attempting to adjust the table, you will need to construct the gauge block shown in **Figure 28**. Do not use common 2x4 material. Use a hard wood material like maple or oak. A pattern for this gauge block has been provided for you on **page 45** of this manual.

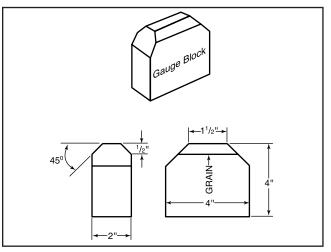


Figure 28. Gauge block specifications.

A better option is to use a Rotocator[®] similar to the one in **Figure 29**. Use the Rotocator whenever the instructions call for use of the gauge block or feeler gauge. Refer to the current Grizzly catalog for Rotocators.

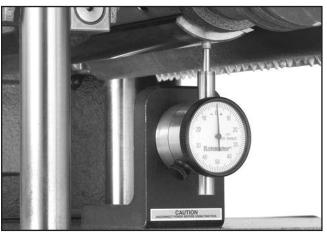


Figure 29. Rotocator.

Knife Inspection

Tools Needed:

Gauge Block (Not included)1
Feeler Gauge (Not included)1

The Model G1037Z Planer/Moulder has a threeknife cutterhead. The cutterhead is located in the head casting and rotates on two sealed bearings.

Because of normal use and wear, the knives must be periodically sharpened, replaced or adjusted. Adjustment from the factory must also be checked prior to use due to possible movement during shipment.

To inspect the knives:

- 1. Disconnect the machine from the power source!
- 2. Lower the table and place the gauge block or a Rotocator under one end of the cutter-head.
- 3. Remove the V-belt cover and carefully rotate the belts to turn the cutterhead until one of the knives is at bottom dead center. Adjust the cutterhead height until the knife barely touches the top of the gauge block. Note—*Rock the cutterhead back and forth to determine bottom dead center.*
- 4. Slide the gauge block to the opposite side of the cutterhead and check the same knife, rocking back and forth to determine bottom dead center.

- If the knife does not contact the gauge block, use a feeler gauge to determine the difference between one side and the other. See Figure 30.
- If the knife bottoms out on the gauge block, repeat steps 1-3, but start on the opposite side of the cutterhead.

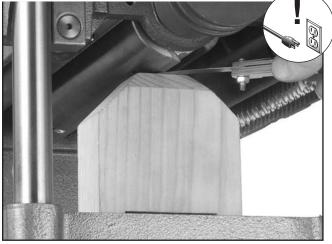


Figure 30. Using the feeler gauge to measure the gap.

 The variation between one side and the other should not be greater than 0.004". Repeat steps 1-4 on the other two knives. Again, the variation between all three knives should not be greater than 0.004".

Once you have completed inspection on all three knives, you will able to determine whether or not there is a need to adjust the knives in the cutter-head.

When making adjustments, all three knives must be adjusted the same. DO NOT adjust one knife without adjusting the others as well. Improper knife height adjustment can result in damage to knives, poor planer/ moulder performance and possible operator injury.

Knife Sharpening

For the best results, have planer knives sharpened by a professional sharpening service which has the grinding and measurement equipment to assure that the knife cutting geometry is maintained at optimum levels. Knife sharpening is a procedure that requires some care and precision; otherwise, a set of blades can be easily ruined. Knives should always be ground as a set so they can be properly matched. Unequal material removal can result in an unbalanced cutterhead which can affect not only planing surface quality but ultimately the life of the cutterhead bearings.

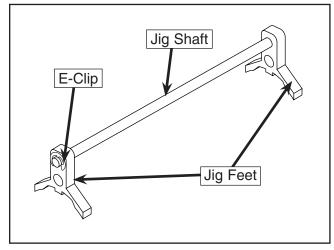
Your planer/moulder knives can be sharpened by a blade hone. See the "Aftermarket Accessories" sub-section at the back of this manual for more information.



Components and Hardware Needed:	Qty
Knife Jig Shaft	1
Knife Jig Feet	2
E-Clips 9mm	

To assemble the knife setting jig:

- 1. Snap one of the E-clips over the notch on one end of the knife setting shaft.
- 2. Slide the cast aluminum knife setting jig feet onto the rod.
- **3.** Snap the other E-clip onto the notch at the other end of the knife setting jig shaft.







Knife Setting

Tools Needed:

10/12mm Combo Wrench1
Hex Wrench 4mm1
Drift 1
Knife Setting Gauge 1

This process will be necessary whenever you sharpen or replace the knives, or if knife setting is necessary during the initial setup.

The knives lock into the cutterhead with wedge type gibs. Jack screws under the knives allow fine tuning to help in the setting process.

To set the knives:

- 1. Disconnect the machine from the power source!
- 2. Remove the dust hood assembly to expose the cutterhead.
- **3.** Loosen the set screws that secure the gibs with the 4mm Hex wrench.
- 4. Use a small piece of wood or a drift to tap the gibs down into the cutterhead slot.
- 5. Place the knife setting jig over the knife on the cutterhead as shown in **Figure 32**.

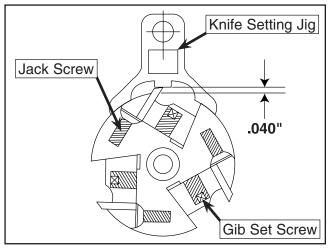


Figure 32. Knife setting jig placement.

- 6. Adjust the jack screws until the knife makes contact with the knife setting jig on both ends.
- 7. While holding the position of the knife setting jig, tighten the gib set screws in the cutterhead. Start with the large gibs first, then the small gib.
- 8. Repeat these steps for the other two knives.
- **9.** Tighten all of the gib set screws sequentially 3 times to reach their final torque.
- **10.** Run the machine for five minutes and check the gib set screws. Tighten the set screws if they are loose.



Feed Roller Height

Tools Needed:

Gauge Block (Not included)1	
Feeler Gauge (Not included)1	

The infeed and outfeed rollers move the lumber through the planer/moulder, and press the lumber flat against the work table.

For use as a planer set the infeed and outfeed rollers to 0.08" below the cutterhead knife edge at bottom dead center. For use as a moulder follow the instructions on **pages 23** and **24**.

To check roller height:

- 1. Disconnect the machine from the power source!
- 2. Raise the table until the gauge block barely touches the infeed roller. See Figure 33.

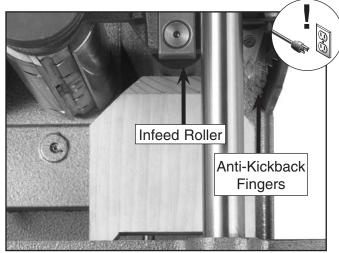


Figure 33. Feed roller height inspection.

- **3.** Slide the gauge block over so it is under the edge of one of the knives. Turn the cutter-head until one of the knives is at bottom dead center over the gauge block.
- 4. Measure the clearance between the top of the gauge block and the edge of the knife with a feeler gauge. Feeler gauge measurement should be between 0.08".
- 5. Repeat **steps 1-5** for the opposite side of the roller. Repeat all steps for the outfeed roller.

If the infeed and outfeed rollers are not 0.08" below the cutterhead knife edge at bottom dead center, or if the rollers are not the same height on both sides, the roller height must be adjusted.

To adjust roller height:

- 1. Slide the gauge block so it is under the edge of one of the knives. Turn the cutterhead until one of the knives is at bottom dead center over the gauge block.
- 2. Place a feeler gauge (0.08") on the gauge block, and raise the table until the gauge block and feeler gauge touch the knives at bottom dead center.
- **3.** Remove the feeler gauge and place the gauge block under the infeed rollers.
- 4. Loosen the locknut shown in **Figure 34** and move the threaded adjuster until the infeed roller rests on top of the gauge block.

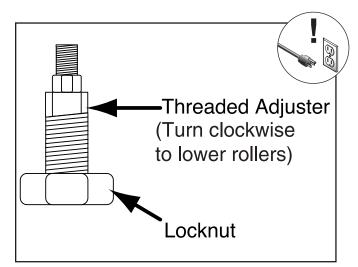


Figure 34. Feed roller height adjustment.

- 5. When the infeed roller is set in the correct position, retighten the locknuts you loosened in **step 4** above.
- 6. Check your settings one last time and repeat steps 1-4 if necessary.
- 7. Repeat for the other side of the infeed roller, and repeat the entire process for the outfeed roller.

Feed Roller Pressure

To be effective, the infeed and outfeed rollers must put pressure on the workpiece as it feeds through the planer/moulder. Too little pressure and the boards will not feed into the machine, too much pressure can overload the motor.

Experiment with the best pressure settings for your work situations. Some lumber will feed through with relatively few problems, while other lumber will have more difficulty.

Adjusting roller pressure does not affect the height of the feed roller.

To adjust roller pressure:

- 1. Disconnect the machine from the power source!
- 2. Ensure that knives and feed rollers are set correctly.
- **3.** Make sure that the spring pressure adjust nuts shown in **Figure 35** are all an equal height from the top of the screw.

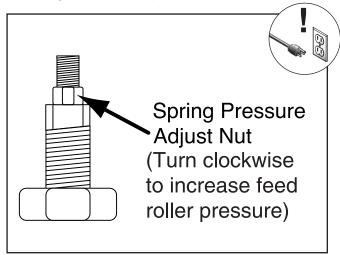
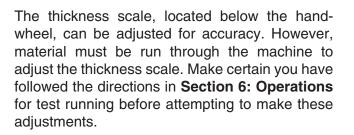


Figure 35. Feed roller height adjustment.

 Increase feed roller pressure by tightening the spring pressure adjust nuts equally. Loosen the spring pressure adjust nuts to reduce feed roller pressure.



Thickness Scale

To adjust the scale:

- 1. Select a pre-planed piece of lumber to use for the test. Measure the lumber with calipers and make a note of its exact thickness.
- **2.** Move the cutterhead to 1/16" under the thickness of your lumber and feed your test board through the planer.
- **3.** Turn the handwheel one half rotation and run the board through once more. Turn the board over and repeat.
- 4. Measure the board again and compare your results with the scale. If there is a discrepancy, loosen the scale pointer screw shown in **Figure 36** and correct the position of the pointer.



Figure 36. Scale pointer screw.



Chip Deflector

Tools Needed:

Combo Wrench 10/12mm 1

The chip deflector directs chips and dust into the dust hood and prevents chips from falling back into the planing area. It is an orange plastic plate located under the top cover.

To adjust the chip deflector:

- 1. Disconnect the machine from the power source!
- 2. Remove the three bolts called out in **Figure 37** with a 12mm wrench and remove the dust hood.

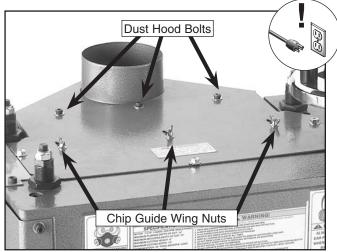


Figure 37. Removing the dust hood.

3. Loosen the bolts holding the chip deflector.

4. Position the chip deflector with a ¼" gap between the knives and the deflector if the planer/moulder is attached to a dust collection system. See Figure 38. (Use a ¼" gap if you are not using a dust collector.) Make sure the beveled edge of the deflector faces the cutterhead.

Note—The chip deflector should be removed when performing moulding operations.

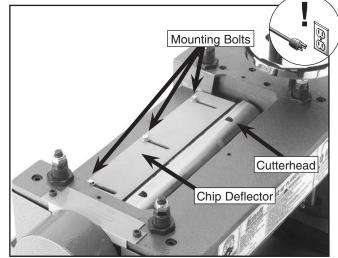


Figure 38. Chip deflector installed.

- **5.** Tighten the screws securing the chip deflector.
- 6. Replace the dust hood assembly and tighten the mounting bolts.
- 7. Loosen the wing nuts that hold the chip guide called out in **Figure 37**. For planer knives, slide the chip guide to the outfeed table side of the slots. For moulding knives, slide the chip guide to the infeed table side of the slots.
- 8. Tighten the wing nuts to secure the chip guide.

SECTION 9: REFERENCE INFO

General

This section contains the following subsections for the Model G1037Z: aftermarket accessories, data sheets, parts diagrams and list, troubleshooting, wiring diagrams, gauge block design, and warranty/return information.

If you need parts or help in assembling your machine, or if you need operational information, call the service department at (570) 546-9663. Trained service technicians will be glad to help you.

If you have any comments regarding this manual, please write to Grizzly at the address below:

Grizzly Industrial, Inc. ^c/_o Technical Documentation P.O. Box 2069 Bellingham, WA 98227-2069 We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department at the location listed below.

> Grizzly Industrial, Inc. 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: (570) 546-9663 Fax: (800) 438-5901 E-Mail: techsupport@grizzly.com Web Site: http://www.grizzly.com.



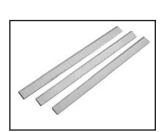
Aftermarket Accessories

To order any of the aftermarket accessories below, find the model number in bold and call our customer service line 24 hours a day at **1-800-523-4777.**

Moulding Knives— available from the current Grizzly catalog or online at grizzly.com.

Replacement Knives— Model G4517

Replace your old planer/ moulder knives and get your machine cutting like new again with these high speed steel replacement knives.



SHOP FOX[®] Mobile Base—Model G7314

Make your planer/moulder mobile with this popular patented mobile base.



Planer Pals—See The Current Grizzly Catalog For Model #s.

These patented jigs are remarkably simple to use and hold knives securely in place while you tighten them in the cutterhead. They also allow you to shift nicked knives to avoid replacement or removal.



Rotocator®—Model G1738

The Rotocator[®] has a magnetic base and is used to adjust settings on any planer. Infeed rollers, outfeed rollers, and planer knives can be adjusted very quickly and accurately.



Planer/Jointer Blade Hone—Model G3631

Add a razor hone to your planer and jointer knives with this hand-held sharpening device.







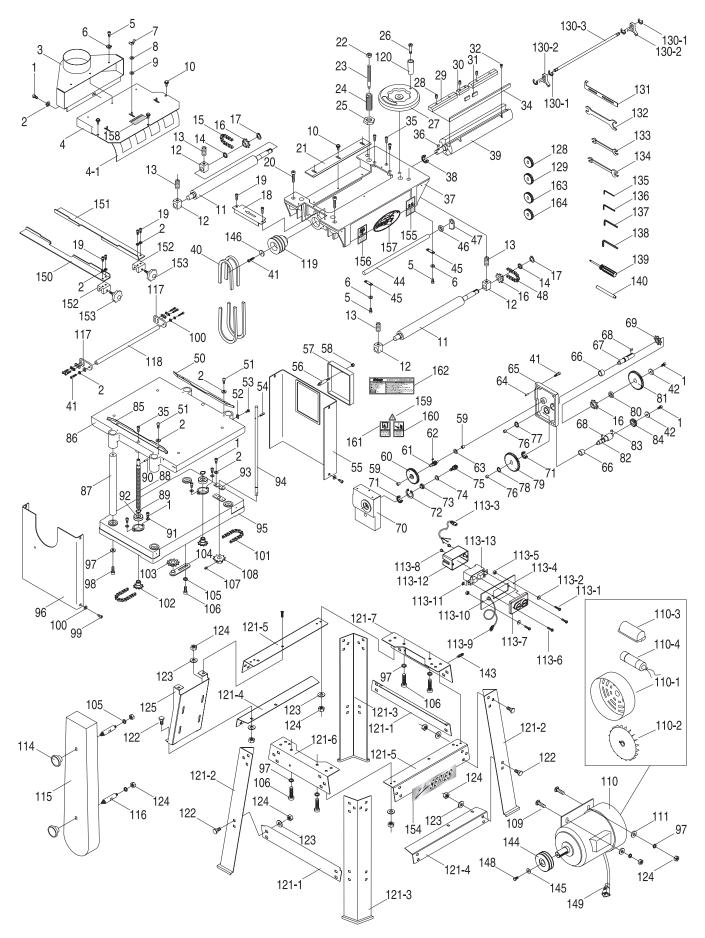
Customer Service #: (570) 546-9663 • To

GRIZZLY MODEL G1037Z 13" PLANER/MOULDER

Design Type	Floor Model
Overall Dimensions:	
•	
Capacities:	
Maximum Depth of Cut	Planing: 1/8"
Maximum Profile Depth	
Maximum Stock Thickness	
Minimum Length Stock	
Minimum Stock Thickness	
Cutterhead Diameter	
Knives	
Motor:	
Туре	TEFC Capacitor-Start Induction
	Single Phase /60 Hz
	Twin V-Belt Drive
Features:	Shielded & Eublicated Dali Dearlings
	Inch and Metric
	Fully Adjustable, Rubber Coated
	Precision Ground Cast Iron Table
	Anti-Kickback Pawls and Chip-Breaker Device
	4 Column Table Support
	2 Moulding Fences

Moulding Knives Sold Separately

Specifications, while deemed accurate, are not guaranteed.



REF	PART #	DESCRIPTION	
1	PSB26M	Cap Screw M6-1 x 12	
2	PLW03M	Lock Washer 6mm	
3	P1037Z003	Dust Chute	
4	P1037Z004	Chip Bracket	
4-1	P1037Z004-1	Chip Guide	
5	PSB86M	Cap Screw M58 x 10	
6	PLW01M	Lock Washer 5mm	
7	PWN03M	Wing Nut M47	
8	PLW02M	Lock Washer 4mm	
9	PW05M	Flat Washer 4mm	
10	PFB01M	Flange Bolt M6-1 x 12	
11	P1037Z011	Roller	
12	P1037Z012	Bushing	
13	P1037Z013	Spring	
14	P1037Z014	Spacer	
15	P1037Z015	Chain	
16	P1037Z016	Sprocket	
17	PR05M	Ext Retaining Ring 15mm	
18	P1037Z018	Cover	
19	PSB04M	Cap Screw M6-1 x 10	
20	PSB13M	Cap Screw M8-1.25 x 30	
20	P1037Z021	Chip Guard Plate	
22		•	
	PN02M	Hex Nut M10-1.5	
23	P1037Z023	Adjustment Shaft	
24	P1037Z024	Adjustable Shaft	
25	P1037Z025	Lock Nut M22	
26	PS42M	Phip Hd Scr M8-1.25 x 35	
27	P1037Z027	Handwheel	
28	PSS14M	Set Screw M8-1.25 x 12	
29	P1037Z029	Long Gib	
30	P1037Z030	Short Gib	
31	P1037Z031	Plate	
32	PSS53M	Set Screw M58 x 12	
34	P1037Z034	Knife	
35	PSB01M	Cap Screw M6-1 x 16	
36	PK20M	Key 5 x 5 x 15	
37	P1037Z037	Upper Frame	
38	P6204	Ball Bearing 6204	
39	P1037Z039	Cutterhead	
40	PVM50	V-belt M-50 3L500	
41	PSB02M	Cap Screw M6-1 x 20	
42	PW03M	Flat Washer 6mm	
44	P1037Z044	Shaft	
45	P1037Z045	Fixing Plate	
46	P1037Z046	Spacer	
47	P1037Z047	Anti-Kickback Finger	
48	P1037Z048	Chain #410 X 18	
50	P1037Z050	Fence, Right	
51	PS68M	Phlp Hd Scr M6-1 x 10	
52	P1037Z052	Pointer	
53	PS07M	Phlp Hd Scr M47 x 8	
54	PRP42M	Roll Pin 3 x 20	

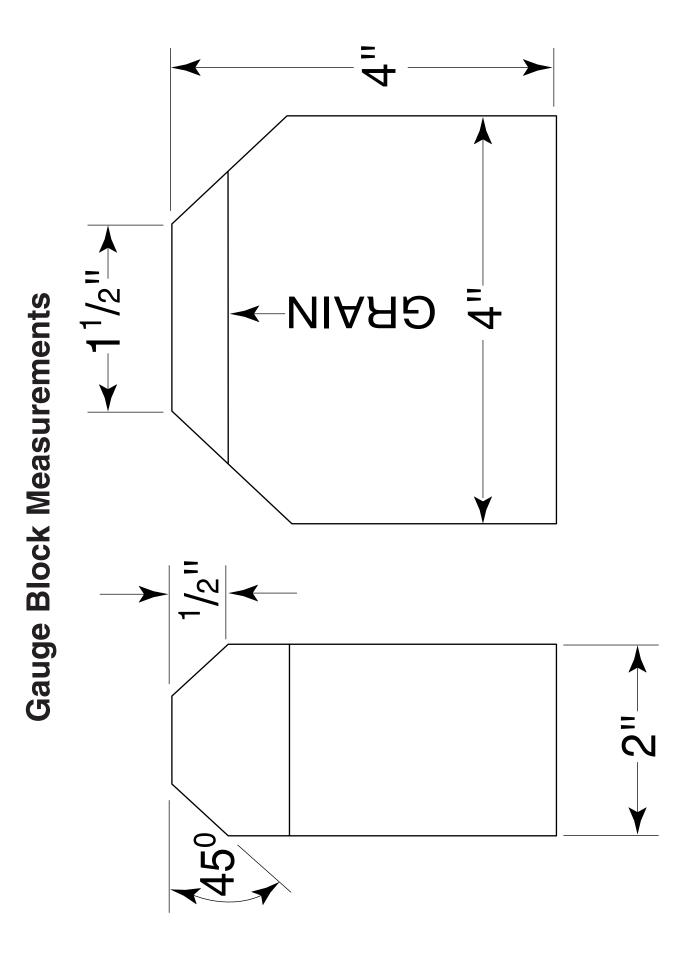
55 P1037Z055 Cover, Right 56 P1037Z056 Shaft 57 P1037Z057 Gear Cover 58 PN35M Acorn Nut M6-1 59 P1037Z059 Bushing 60 P1037Z060 Gear 58T 61 P1037Z061 Gear 10T 62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z065 Gear Box Cover 66 P1037Z066 Bushing 67 P1037Z066 Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 P1037Z079	REF	PART #	DESCRIPTION	
57 P1037Z057 Gear Cover 58 PN35M Acorn Nut M6-1 59 P1037Z059 Bushing 60 P1037Z060 Gear 58T 61 P1037Z061 Gear 10T 62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z065 Gear Box Cover 66 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z070 Gear Box 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T <td>55</td> <td>P1037Z055</td> <td colspan="2">Cover, Right</td>	55	P1037Z055	Cover, Right	
58 PN35M Acorn Nut M6-1 59 P1037Z059 Bushing 60 P1037Z060 Gear 58T 61 P1037Z061 Gear 10T 62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z066 Bushing 67 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 31T 81 P1037Z08	56	P1037Z056	Shaft	
59 P1037Z059 Bushing 60 P1037Z060 Gear 58T 61 P1037Z061 Gear 10T 62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z065 Gear Box Cover 66 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z080 Spacer 81 P1037Z081 Gear 31T 82 P1037	57	P1037Z057	Gear Cover	
60 P1037Z060 Gear 58T 61 P1037Z061 Gear 10T 62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z065 Gear Box Cover 66 P1037Z066 Bushing 67 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 42T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z085 Fence, Left 86 P1037Z086 <td>58</td> <td>PN35M</td> <td>Acorn Nut M6-1</td>	58	PN35M	Acorn Nut M6-1	
61 P1037Z061 Gear 10T 62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z065 Gear Box Cover 65 P1037Z066 Bushing 67 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z080 Spacer 81 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z	59	P1037Z059	Bushing	
62 PK03M Key 3 x 3 x 8 63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z065 Gear Box Cover 66 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 79 P1037Z080 Spacer 81 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P10	60	P1037Z060	Gear 58T	
63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z065 Gear Box Cover 66 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z070 Gear Box 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 42T 80 P1037Z080 Spacer 81 P1037Z082 Shaft 82 P1037Z084 Gear 31T 85 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M	61	P1037Z061	Gear 10T	
63 PW03M Flat Washer 6mm 64 P1037Z064 Pin 65 P1037Z065 Gear Box Cover 66 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z070 Gear Box 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M <td>62</td> <td>PK03M</td> <td>Key 3 x 3 x 8</td>	62	PK03M	Key 3 x 3 x 8	
65 P1037Z065 Gear Box Cover 66 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z082 Shaft 82 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 9	63	PW03M		
66 P1037Z066 Bushing 67 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z084 Gear 31T 83 PK29M Key 4 x 4 x 8 84 P1037Z087 Post 88 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M	64	P1037Z064	Pin	
66 P1037Z066 Bushing 67 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z084 Gear 31T 83 PK29M Key 4 x 4 x 8 84 P1037Z087 Post 88 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M	65	P1037Z065	Gear Box Cover	
67 P1037Z067 Chain Sprocket Shaft 68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PR937M Roll Pin 3 x 14 91 PW03M Flat				
68 PK29M Key 4 x 4 x 8 69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z076 Bushing 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PR937M Roll Pin 3 x 14 91 PW03M <t< td=""><td>67</td><td>P1037Z067</td><td><u> </u></td></t<>	67	P1037Z067	<u> </u>	
69 P1037Z069 Sprocket 70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z084 Gear 31T 83 PK29M Key 4 x 4 x 8 84 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PR937M Roll Pin 3 x 14 91				
70 P1037Z070 Gear Box 71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 86 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate				
71 P6202 Ball Bearing 6202 72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 86 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004			•	
72 PR21M Int Retaining Ring 35mm 73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PR37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm <				
73 P1037Z073 Bushing 74 PW14M Flat Washer 15mm 75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 85 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M6-1 x 8				
74 PW14M Flat Washer 15mm 75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z080 Spacer 81 P1037Z080 Spacer 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Loc			<u> </u>	
75 P1037Z075 Gear 9T 76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 86 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB68M Cap Screw M6-1 x 8			<u> </u>	
76 P1037Z076 Bushing 77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 86 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004				
77 PR06M Ext Retaining Ring 16mm 78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 86 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M				
78 PR02M Ext Retaining Ring 14mm 79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M				
79 P1037Z079 Gear 72T 80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z087 Post 88 P1037Z087 Post 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 91 P1037Z101 Chain 102				
80 P1037Z080 Spacer 81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z087 Post 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 <td< td=""><td></td><td></td><td><u> </u></td></td<>			<u> </u>	
81 P1037Z081 Gear 46T 82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z104 Idler Bracket				
82 P1037Z082 Shaft 83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z087 Post 87 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PR97M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M <td></td> <td></td> <td></td>				
83 PK29M Key 4 x 4 x 8 84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z087 Post 87 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z104 Idler Bracket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
84 P1037Z084 Gear 31T 85 P1037Z085 Fence, Left 86 P1037Z087 Post 87 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PR97M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z095 Base 95 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
85 P1037Z085 Fence, Left 86 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm			-	
86 P1037Z086 Middle Frame 87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
87 P1037Z087 Post 88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
88 P1037Z088 Elevation Screw 89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
89 PR09M Ext Retaining Ring 20mm 90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
90 PRP37M Roll Pin 3 x 14 91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
91 PW03M Flat Washer 6mm 92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
92 P6004 Ball Bearing 6004 93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
93 P1037Z093 Fixing Plate 94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
94 P1037Z094 Shaft 95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm			-	
95 P1037Z095 Base 96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm			0	
96 P1037Z096 Cover, Left 97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
97 PLW04M Lock Washer 8mm 98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
98 PSB31M Cap Screw M8-1.25 x 25 99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
99 PSB68M Cap Screw M6-1 x 8 100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
100 PW03M Flat Washer 6mm 101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
101 P1037Z101 Chain 102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
102 P1037Z102 Sprocket 103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
103 P1037Z103 Sprocket 104 P1037Z104 Idler Bracket 105 PW01M Flat Washer 8mm				
104P1037Z104Idler Bracket105PW01MFlat Washer 8mm				
105 PW01M Flat Washer 8mm				
106 PSB14M Cap Screw M8-1.25 x 20				
	106	PSB14M	Cap Screw M8-1.25 x 20	

REF F	PART # C	DESCRIPTION		
107	PSS02M	Set Screw M6-1 x 6		
108	P1037Z108	Sprocket		
109	PCB05	Carriage Bolt 5/16-18 x 3/4		
110	P1037Z110	Motor		
110-1	P1037Z110-1	Fan Cover		
110-2	P1037Z110-2	Motor Fan		
110-3	P1037Z110-3	Capacitor Cover		
110-4	PC400A	Capacitor 400MFD 125V		
111	PW01M	Flat Washer 8mm		
113	P1037Z113	Switch Assembly		
113-1	PS21M	Phlp Hd Scr M47 x 15		
113-2	PW05M	Flat Washer 4mm		
113-3	P1037Z113-3	Switch Cord		
113-4	P1037Z113-4	Switch Plate		
113-5	PN04M	Hex Nut M47		
113-6	PHTEK28M	Tap Screw M4 x 25		
113-7	P1037Z113-7	Switch Cover		
113-8	P1037Z113-8	Strain Relief		
113-9	P1037Z113-9	Power Cord		
113-10	P1037Z113-10	Strain Relief		
113-11	PTLW06M	Ext Tooth Washer 4mm		
113-12	P1037Z113-12	Switch Box		
113-13	P1037Z113-13	Switch		
114	P1037Z114	Knob (Female) M8-1.25		
115	P1037Z115	Pulley Cover		
116	P1037Z116	Stud		
117	P1037Z117	Fence Guide Rod Bracket		
118	P1037Z118	Fence Guide Rod		
119	P1037Z119	Pulley		
120	P1037Z120	Handle		
121	P1037Z121	Stand Assembly		
121-1	P1037Z121-1	Lower Side Brace		
121-2	P1037Z121-2	Leg E		
121-3	P1037Z121-3	Leg F		
121-4	P1037Z121-4	Lower End Brace		
121-5	P1037Z121-5	Upper End Brace		
121-6	P1037Z121-6	Upper Side Brace, L		
121-7	P1037Z121-7	Upper Side Brace, R		
122	PCB02	Carriage Bolt 5/16-18 x 1/2		
123	PW01M	Flat Washer 8mm		

REF	PART #	DESCRIPTION
124	PN02	Hex Nut ⁵ /16-18
125	P1037Z125	Motor Mount
128	P1037Z128	57T Gear
129	P1037Z129	20T Gear
130	P1037Z130	Knife Setting Jig
130-1	PEC10M	E-Clip 9mm
130-2	P1037Z130-2	Knife Setting Jig Foot
130-3	P1037Z130-3	
131	P1037Z131	"L" Gauge
132	P1037Z132	17 x 32 Wrench
133	PWR1012	10 X 12 Wrench
134	PWR1113	11 X 13 Wrench
135	PAW03M	Hex Wrench 3mm
136	PAW04M	Hex Wrench 4mm
137	PAW05M	Hex Wrench 5mm
138	PAW06M	Hex Wrench 6mm
139	P1037Z139	Screwdriver
140	P1037Z140	Drift
143	P1037Z143	Wire Clip
144	P1037Z144	Pulley
145	PW01M	Flat Washer 8mm
146	PW03M	Flat Washer 6mm
147	PW01M	Flat Washer 8mm
148	PB09	Hex Bolt 5/16-18 x 1/2
149	P1037Z149	Motor Cord
150	P1037Z150	Left Moulding Fence
151	P1037Z151	Right Moulding Fence
152	P1037Z152	Bracket
153	P1037Z153	Knob (Male) M6-1 x 20
154	PLABEL-4	Z Series Label
155	P1037Z155	Ear Protection Label
156	P1037Z156	Respirator/Glasses Label
157	G9987	Grizzly Name Plate
158	P1037Z158	Cutterhead Cover Label
159	PLABEL-14	Electricity Label
160	PLABEL-26	Unplug Label
161	PLABEL-12	Read Manual Label
162	P1037Z162	Machine ID Label
163	P1037Z163	31T Gear
164	P1037Z164	46T Gear

Troubleshooting Planer

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	 Low voltage. Open circuit in motor or loose connections. 	 Check power line for proper voltage. Inspect all lead connections on motor for loose or open connections.
Motor stalls or will not start; fuses or circuit breakers blow.	 Short circuit in line cord or plug. Short circuit in motor or loose connections. Incorrect fuses or circuit breakers in power line. Low voltage. Motor overloaded. 	 Inspect cord or plug for damaged insulation and shorted wires. Inspect all connections on motor for loose or shorted terminals or worn insulation. Install correct fuses or circuit breakers. Correct the low voltage conditions. Reduce load on motor.
Motor overheats.	 Motor overloaded. Air circulation through the motor restricted. 	 Reduce load on motor. Clean out motor to provide normal air circulation.
Machine slows when oper- ating.	 Feed rate too high. Depth of cut too great. Knives are dull 	 Feed workpiece slower. Reduce depth of cut. Sharpen knives.
Loud, repetitious noise com- ing from machine	 Pulley setscrews or keys are missing or loose. Motor fan is hitting the cover. V-belt is defective 	 Sharpen Knives. Inspect keys and setscrews. Replace or tighten if necessary. Tighten fan or shim cover. Replace V-belt. See Section 7: Maintenance.
Infeed roller marks are left on the workpiece.	1. Depth of cut too shallow.	 heplace v-belt. See Section 7: Maintenance. Increase depth of cut.
Outfeed roller marks are left on the workpiece.	 Too much spring tension on feed roller. 	1. Refer to Section 8: Adjustments for adjustment.
Cannot control snipe.	 Long or heavy board sags as it enters and exits. 	1. Lift up on unsupported end of board as it enters and exits cutter-
Chip buildup on outfeed roller.	 Chips working their way back under the chip deflector. 	 head. 1. Lay duct tape over the mounting bolts along the outside edge to seal
Machine howls on startup.	1. Chip deflector too close to the cut- terhead.	 Any possible gaps. Move chip deflector back ¹/₈" to ¹/₄" from the cutterhead.
Table moves down while cutting.	1. Knives dull.	1. Sharpen or replace knives. See Section 8: Adjustments.
Chipped grain occurs when planing or moulding.	 Planing against the grain. Dull knives. 	 Flip the board and plane the other side. Sharpen or replace knives. See Section 8: Adjustments.
Fuzzy grain occurs when planing or moulding.	 Lumber has high moisture content. Dull knives. 	1. If moisture content is higher than 20%, sticker and allow to dry.
Chatter marks occur when planing or moulding.	 Feeding narrow lumber through at the ends of the cutterhead. 	 Sharpen or replace knives. See Section 8: Adjustments. Feed lumber through the center of the cutterhead.
A wavy surface occurs when planing or moulding.	1. Unequal knife height adjustment.	2. Reset the knives. See Section 8: Adjustments.



Warranty and Returns

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

WARRANTY CARD

Nar	ne				
Stre	et				
City				State	
Pho	ne Number	E-Mail		FAX	
				Order #	
The f	ollowing information is given on a	voluntary basis. It will be used for n	narketing	purposes to help us develop better	products and services. Of
cour	se, all information is strictly confide	ential.	-		
1.	How did you learn about us?			Other	
	now did you learn about us:				
	Advertisement Catalog	Friend Card Deck	9.	How many of your woodworking ma	chines are Grizzly?
	World Wide Web				
	Other		10.	Which benchtop tools do you own?	Check all that apply.
	Other			1" x 42" Belt Sander	6" - 8" Grinder
2.	Which of the following magazines d	o you subscribe to.		5" - 8" Drill Press	Mini Lathe
	American Woodworker	Practical Homeowner		8" jointer 8" - 10" Bandsaw	10" - 12" Thickness Planer Scroll Saw
	Cabinetmaker	Shop Notes		Disc/Belt Sander	Spindle/Belt Sander
	Family Handyman	Today's Homeowner		Mini Jointer	
	Fine Homebuilding Fine Woodworking	WOOD Wooden Boat		Other	
	Home Handyman	Woodshop News			
	Journal of Light Construction	Woodsmith	11.	How many of the machines checked	l above are Grizzly?
	Old House Journal	Woodwork	12.	Which portable/band hold power too	le de veu euro? Cheek ell thet erriu
	Popular Mechanics Popular Science	Woodworker Woodworker's Journal	12.	which portable/hand held power too	Is do you own? Check all that apply.
	Popular Woodworking	Workbench		Belt Sander	Orbital Sander
	Other			Biscuit Joiner	Palm Sander
				Circular Saw	Portable Planer
3.	Which of the following woodworking	/remodeling shows do you watch?		Detail Sander Drill/Driver	Saber Saw Reciprocating Saw
	6 6			Miter Saw	Router
	Backyard America Home Time	The New Yankee Workshop This Old House		Other	
	The American Woodworker	Woodwright's Shop	13.	What machines/supplies would you	like Grizzly Industrial to carry?
	Other				
4.	What is your annual household inco	ome?			
	\$20,000-\$29,999	\$60,000-\$69,999			
	\$30,000-\$39,999	\$70.000-\$79.999	14.	What new accessories would you lik	e Grizzly Industrial to carry?
	\$40,000-\$49,999	\$80,000-\$89,999			
	\$50,000-\$59,999	\$90,000 +			
5.	What is your age group?				
	00.00	50 50	15.	What other companies do you purch	ase your tools and supplies from?
	20-29 30-39	50-59 60-69			
	40-49	00 +			
6.	How long have you been a woodwo	orker?	16.	Do you think your purchase represe	nts good value?
	0 - 2 Years	8 - 20 Years			
	2 - 8 Years	20+ Years		Yes	No
7.	How would you rank your woodwor	king skills?	17.	Would you recommend Grizzly Indu	strial to a friend?
	Simple	Advanced		Yes	No
	Intermediate	Master Craftsman	10	Would you allow up to upp your pame	a a a reference for Crizzly austomore
8.	What stationary woodworking tools	do you own? Check all that apply.	18.	Would you allow us to use your name in your area? Note: We never use i	
	Air Compressor	Panel Saw		Yes	No
	An complessor	Planer	10	Commonto	
	Drill Press	Power Feeder	19.	Comments:	
	Drum Sander	Radial Arm Saw			
	Dust Collector Horizontal Boring Machine	Shaper Spindle Sander			
	Jointer	jointer			
	Lathe	Vacuum Veneer Press			
	Mortiser	Wide Belt Sander			

FOLD ALONG DOTTED LINE



Place Stamp Here



GRIZZLY INDUSTRIAL, INC. P.O. BOX 2069 BELLINGHAM, WA 98227-2069

Մեհետենենենենենենենենենեն

FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

State	Zip
	State

TAPE ALONG EDGES--PLEASE DO NOT STAPLE



Buy Direct and Save with Grizzly[®] – Trusted, Proven and a Great Value!

Visit Our Website Today And Discover Why Grizzly[®] Is The Industry Leader!

- SECURE ORDERING
- ORDERS SHIPPED WITHIN 24 HOURS
- E-MAIL RESPONSE WITHIN ONE HOUR

-OR-

