Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference. 20l

Bauer™

21504C-B

20v HYPERMAX™ LITHIUM



For Best Results, Use 3.0 Amp Hour Battery (Sold Separately)

3¼"
CORDLESS PLANER

Visit our website at: http://www.harborfreight.com
Email our technical support at: productsupport@harborfreight.com

57777

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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WARNING SYMBOLS AND DEFINITIONS	
⚠	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

General Power Tool Safety Warnings

⚠WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool. *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. **Work area safety**
   a. **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
   b. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
   c. **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*
2. **Electrical safety**
   a. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
   b. **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
   c. **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*

d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*

e. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

f. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** *Use of a GFCI reduces the risk of electric shock.*

3. **Personal safety**

a. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*

b. **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*

c. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*

d. **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*

e. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*

f. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*

g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*

h. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

i. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.

j. Do not lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.

k. When using a handheld power tool, maintain a firm grip on the tool with both hands to resist starting torque.

l. Do not leave the tool unattended when the Battery Pack is connected. Turn off the tool, and remove the Battery Pack before leaving.

m. This product is not a toy. Keep it out of reach of children.

n. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.

o. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

4. **Power tool use and care**

a. **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*

b. **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*

c. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*

e. **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*

f. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

g. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

h. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

5. **Service**

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

b. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

6. **Safety instructions for planers**

a. **Wait for the cutter to stop before setting the tool down.** *An exposed rotating cutter may engage the surface leading to possible loss of control and serious injury.*

b. **Hold the power tool by insulated gripping surfaces, because the cutter may contact its own cord.** *Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.*

c. **Use clamps or another practical way to secure and support the workpiece to a stable platform.** *Holding the workpiece by your hand or against the body leaves it unstable and may lead to loss of control.*

7. **Battery tool use and care**

a. **Prevent unintentional starting.** *Ensure the switch is in the off-position before connecting to battery pack, picking up or carrying the power tool. Carrying the power tool with your finger on the switch or energizing power tool that have the switch on invites accidents.*

b. **Disconnect the battery pack from the power tool before making any adjustments, changing accessories, or storing power tool.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

c. **Recharge only with the charger specified by the manufacturer.** *A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.*

d. **Use power tools only with specifically designated battery packs.** *Use of any other battery packs may create a risk of injury and fire.*

e. **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** *Shorting the battery terminals together may cause burns or a fire.*

f. **Under abusive conditions, liquid may be ejected from the battery; avoid contact.** *If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.*

g. **Do not use a battery pack or power tool that is damaged or modified.** *Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.*

h. **Do not expose a battery pack or power tool to fire or excessive temperature.** *Exposure to fire or temperature above 265°F may cause explosion.*

i. **Follow all charging instructions and do not charge the battery pack or power tool outside of the temperature range specified in the instructions.** *Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.*

j. **Have servicing performed by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the product is maintained.*

k. **Do not modify or attempt to repair the power tool or the battery pack except as indicated in the instructions for use and care.**

l.  The battery Charger gets hot during use. The Charger's heat can build up to unsafe levels and create a fire hazard if it does not receive adequate ventilation, due to an electrical fault, or if it is used in a hot environment. Do not place the Charger on a flammable surface. Do not obstruct any vents on the Charger. **Especially avoid placing the Charger on carpets and rugs; they are not only flammable, but they also obstruct vents under the Charger.** Place the Charger on a

stable, solid, nonflammable surface (such as a stable metal workbench or concrete floor) at least 1 foot away from all flammable objects, such as drapes or walls. Keep a fire extinguisher and a smoke detector in the area. Frequently monitor the Charger and Battery Pack while charging.

8. **Lithium Battery Safety Warnings**



LITHIUM BATTERIES STORE A LARGE AMOUNT OF ENERGY AND WILL VENT FIRE OR EXPLODE IF MISTREATED:

a. **Keep Battery Pack dry.**

b. **DO NOT DO ANY OF THE FOLLOWING TO THE BATTERY PACK:**
   - **Open,**
   - **Drop,**
   - **Short-circuit,**
   - **Puncture,**
   - **Incinerate, or**
   - **Expose to temperatures greater than 265°F.**

c. Charge Battery Pack only according to its Charger's instructions.

d. Inspect Battery Pack before every use; do not use or charge if damaged.

9. **Vibration Safety**

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

a. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.

b. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.

c. Wear suitable gloves to reduce the vibration effects on the user.

d. Use tools with the lowest vibration when there is a choice.

e. Include vibration-free periods each day of work.

f. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.

g. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

Grounding

⚠WARNING



TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING: Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the charger. Do not use the charger if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Note: Extension cords must not be used with this item's Charger.

	WARNING marking concerning Risk of Explosion. Do not puncture, short, or open battery packs and do not charge damaged battery packs.

Extension Cords

Note: Extension cores must not be sued with this item's Charger.

Symbology

	Double Insulated
V	Volts
~	Alternating Current
A	Amperes
n_0 xxxx/min.	No Load Revolutions per Minute (RPM)
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields.

	Read the manual before set-up and/or use.
	WARNING marking concerning Risk of Fire. Do not cover Charger ventilation ducts. Charge on fireproof surface only.
	WARNING marking concerning Risk of Electric Shock. Properly connect Charger's power cord to appropriate outlet.
	WARNING marking concerning Risk of Explosion. Do not puncture, short, or open battery packs and do not charge damaged battery packs.

Specifications

Battery Pack	Bauer 20V Li-Ion 64816 (sold separately)
Charger	Bauer 20V Li-Ion 63947 (sold separately)
Speed	n_0 11,000/min
Planing Capacity	0 - 1/16"
Planing Width	3-1/4" Max

Setup - Before Use:



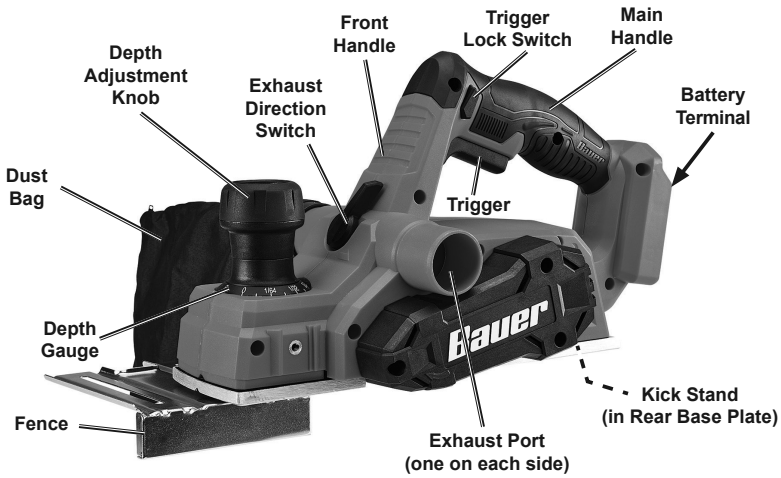
Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Note: For additional information regarding the parts listed in the following pages, refer to *Parts List and Diagram* on page 14.

Charging

Charge battery after unpacking and before using this tool. Follow instructions included with battery charger (Battery Pack and Charger sold separately).

Functions



Operating Instructions

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Workpiece and Work Area Set Up

1. Workpiece must be free of foreign objects.
2. Designate a work area that is clean and well lit. The work area must not allow access by children or pets to prevent distraction and injury.
3. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
4. There must not be objects, such as utility lines, nearby that will present a hazard while working.

Tool Changing

⚠WARNING

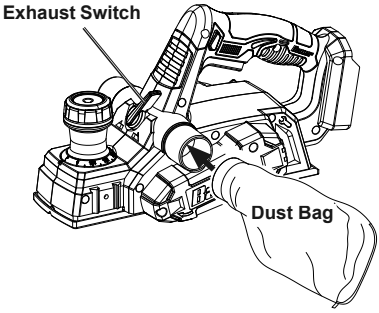
TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Make sure that the Trigger is in the off-position and remove its Battery Pack before performing any procedure in this section.

The Planer comes with a Dust Bag, a Rabbet Edge Guide, and two reversible double edged Knives.

Attaching Dust Bag or Vacuum

The Exhaust Port is 1-14" and a vacuum (sold separately) or included Dust Bag can be attached.

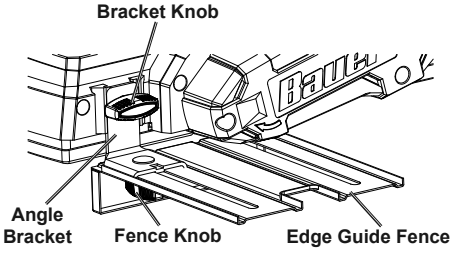
1. Set Exhaust Switch for desired Exhaust Port.
2. To attach the Dust Bag, push it onto the Exhaust Port.
3. To attach a vacuum, connect the vacuum hose directly or use an adapter to connect it to the Exhaust Port.



Attaching Edge Guide Fence

The Fence controls the width of the cut from the edge of the workpiece.

1. Attach Angle Bracket to the either side of the Planer and tighten Bracket Knob securely.
2. Attach Edge Guide Fence to the Bracket using the Fence Knob but do not tighten.
3. Adjust the Edge Guide Fence to the desired width then tighten Fence Knob securely.



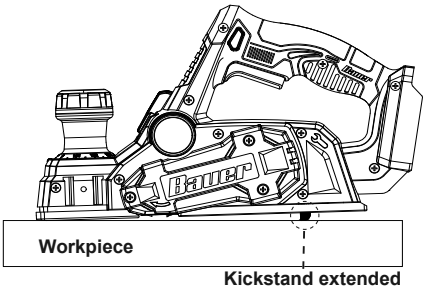
Kickstand

The Planer has an automatic pivoting Kickstand that will prevent the Knives from contacting the workpiece when the Planer is not on.

When the Trigger is squeezed, the Kickstand will automatically retract into the Rear Base Plate as it passes over the edge of the workpiece.

When the Trigger is released, the Kickstand will automatically extend preventing the Knives from making contact with the workpiece.

Caution! Make sure the Kickstand operates freely at all times and the area around it is clean of debris.



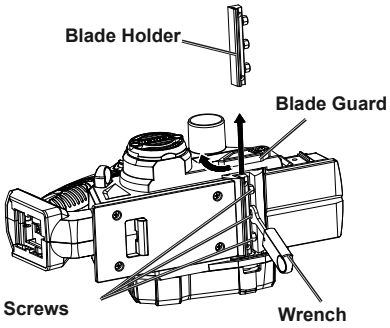
Changing Knives

1. **WARNING! TO AVOID SERIOUS INJURY: Before working on the Knives, wear ANSI-approved safety goggles and heavy-duty leather work gloves.**
2. **WARNING! TO AVOID SERIOUS INJURY: Disconnect the Battery Pack and allow Knives to cool completely if used recently.**

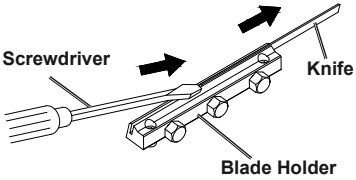
CAUTION! Do not attempt to sharpen knives. If knives are dull or damaged, replace them. Use the standard straight knives on this Planer.

Note: Planer knives are reversible. Always reverse or replace knives in pairs.

3. Turn Planer over and **slightly loosen** three screws securing the Blade Holder. Turn counterclockwise with the provided Wrench until the Blade Holder loosens. **Do not remove or over-loosen the screws!**

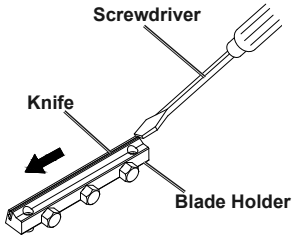


4. Take note of the knife cut direction and how the tapered edge of the knife is oriented.
5. Depress the spring-loaded Blade Guard and push the Blade Holder out of the cutter block using the tip of a screwdriver.



Note: If the Knife is not easily pushed out of the Blade Guard, use a block of wood to break the Knife loose from its holder, then push the Knife away using a screwdriver.

6. Clean away any debris and slide a new Knife into the slot of the Blade Holder. Match the cut direction and tapered edge of the Knife removed. Use a screwdriver to push the Knife into the Blade Holder.



7. Insert the Blade Holder back into the cutter block assembly.
8. Use the Wrench to tighten the three securing screws and repeat procedure for the other Knife.
9. **IMPORTANT!** Carefully double-check that the Knives and Blade Holder are secure and that both Knives are level before use.

Setting and Testing

1. Ensure the Dust Bag/vacuum, Edge Guide Fence, and Knives are correctly attached to the Planer.
2. Connect the Battery Pack.
3. Hold onto the tool with both hands. Press Trigger Lock Switch to either side and squeeze the Trigger. Run the tool for at least 30 seconds.
4. If abnormal noise/vibration occurs or if the Dust Bag/vacuum, Edge Guide Fence, or Knives slip off or misalign, have the problem corrected before further use.
5. Release Trigger and set Trigger Lock Switch to middle position. Remove Battery Pack.

General Instructions for Use

1. **WARNING! TO AVOID SERIOUS INJURY: Before working with the Planer, wear ANSI-approved safety goggles and heavy-duty leather work gloves.**
2. **WARNING! TO AVOID SERIOUS INJURY: Disconnect Battery Pack and allow Knives to cool completely if used recently.**
3. Clamp workpiece and check that the workpiece is free of foreign objects.
4. Make sure that the Trigger is in the off-position, then attach the Battery Pack making sure it clicks into place securely.
5. Only use the following cutting head types: standard straight knives (as included).
6. **Follow instructions listed in the following sections for specific procedures.**
7. While standing to the *side* of workpiece, hold the Planer *firmly* with one hand on the main handle and the other hand on the front handle.
8. Set the Planer's Adjustable Base Plate on the front edge of the wood stock. Then, push the Trigger Lock Switch to the side and squeeze the Trigger to start the Planer.
9. **WARNING! TO AVOID SERIOUS INJURY: Confirm that both Knives are properly aligned and that both Knives are secured fully. Start tool off of workpiece and allow tool to reach full speed.**
   - If tool vibrates or becomes noisy SWITCH IT OFF IMMEDIATELY, unplug it and allow it to come to a complete stop. Adjust and tighten knives to correct imbalance.
   - If vibration or noise persists, do not use tool until inspected and repaired by a qualified technician.

IMPORTANT: Do not start to move Planer across the workpiece until the Knives are spinning at full speed.

10. While pressing the Adjustable Base Plate and the Edge Guide Fence (if used) against the workpiece, feed the Planer slowly until the Rear Base Plate contacts the workpiece. Then, transfer pressure to the Rear Base Plate, and continue planing slowly to the end of the cut. *Do not pull the Planer backwards over the surface already cut.*

    Note: As the Planer moves forward across the workpiece, the Kick Stand will rotate out of the way and into the cutout in the Rear Base Plate.
11. If necessary, repeat Step #10, using progressively deeper cuts until the cut nears the desired depth.
12. Adjust the Depth Adjustment Knob to make a light cut for the final pass to help give the workpiece a cleaner finish.
13. The Planer's motor may stall if the tool is used improperly (pressed forward too quickly at too deep a planing depth). If the motor begins to stall, reduce the cut speed and/or cut depth.

WARNING! TO PREVENT SERIOUS INJURY:
The tool will restart automatically if stalled.

14. When finished planing, carefully lift the Planer from the workpiece and release the Trigger. Press the Trigger Lock Switch to the middle position. The Kickstand will automatically rotate out of the Rear Base Plate. Wait until the Knife Drum comes to a complete stop and set the Planer down so it is supported by the Base Plate and the Kickstand. Turn the Depth Adjustment Knob to the "P" setting.
15. To prevent accidents after use:
    - Release Trigger and set Trigger Lock Switch to middle position.
    - Remove Battery Pack.
    - Set Depth Adjustment Knob to "P" to "park" the knives.
    - Clean, then store tool indoors out of children's reach.

Depth Adjustment

The Depth Adjustment Knob controls the depth of the cut for each pass.

1. Turn the knob so that the desired setting on the Depth Gauge lines up with the triangle marker on the front of the Planer.
2. When finished using the Planer, set Depth Adjustment Knob to "P" to "park" the knives.



Making Rabbet Cuts

Rabbeting is creating a step on the edge of a workpiece. Rabbeting is typically used in door and window jambs.

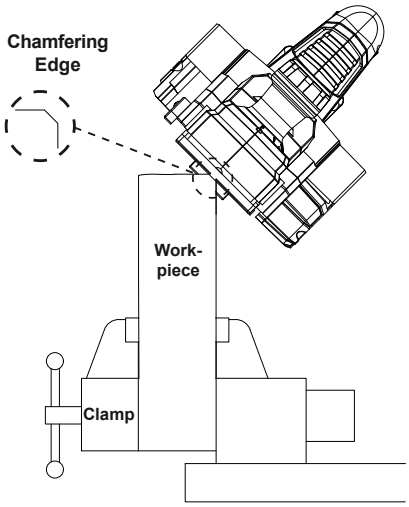
1. Attach Angle Bracket to the left side of the Planer following Attaching Edge Guide Fence instructions on page 8.
2. The width of the rabbet cut is adjusted by the Edge Guide Fence.
3. Use the Depth Adjustment Knob to set the cut depth. Follow the General Instructions for Use on page 10 and plane the board using multiple passes. The maximum depth of the rabbet cut is 1/2″ and should be cut in increments of 1/16″ (or less) for each pass until the desired depth is achieved.

Chamfering Edges

The Planer has a groove in the front shoe that is used as a guide when cutting a 45° angle along a corner of a board, called a chamfer.

Note: This technique requires experience to accomplish properly. Practice on a piece of scrap wood before attempting to chamfer a workpiece.

1. Clamp the workpiece securely.
2. Place the chamfering groove on the corner edge to be cut. Hold the Planer at a 45° angle and seat the corner of the workpiece securely into the groove.
3. Hold the Depth Adjustment Knob with one hand and the handle with your other hand.
4. Start the Planer and allow it to reach maximum speed.
5. Follow the General Instructions for Use on page 10. Keep the corner securely seated in the groove from the beginning all the way through the cut. Hold the Planer firmly and push it forward into the workpiece using a slow steady motion. Keep the Planer horizontal from the beginning to the end of the workpiece.



Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Make sure that the Trigger is in the off-position and remove its Battery Pack before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

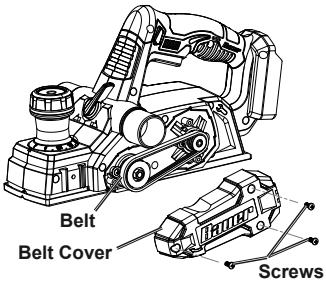
Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE,** inspect the general condition of the tool. Check for:
   - leaking, swollen, or cracked battery pack,
   - loose hardware,
   - misalignment or binding of moving parts,
   - cracked or broken parts, and
   - any other condition that may affect its safe operation.
2. **AFTER USE,** wipe external surfaces of the tool with clean cloth.
3. Li-Ion BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.
   Do not short, incinerate or open battery.
4. For knife changing instructions see Changing Knives on page 8.
5. Disconnect battery pack and store battery pack, charger, and tool in dry, indoor area out of reach of children and away from metal objects (i.e., paperclips, coins) to prevent shorting.

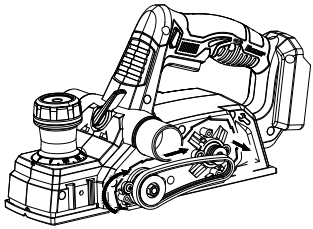
Replacing the Belt

Turn the Depth Adjustment Knob to the “P” setting and support the Planer on the Base Plate. The Kickstand should be extended preventing the Knife from contacting the surface the Planer is resting on.

1. Remove the three screws from the Belt Cover, then remove the Belt Cover.



2. Remove the old belt from the small pulley. Turn the pulley in the direction shown and work the belt off until its completely removed from both pulleys.



3. Install the new belt aligning it into the pulley grooves.
4. Replace the Belt Cover and secure it with the three screws. Do not over-tighten the screws.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start.	1. Battery Pack not properly connected.	1. Remove Battery Pack, make sure there are no obstructions, reinsert the Battery Pack according to its shape (it should only fit one way), and press firmly until the Battery Pack locks in place.
	2. Battery Pack not properly charged.	2. Make sure Charger is connected and operating properly. Give enough time for Battery Pack to recharge properly.
	3. Battery Pack burnt-out.	3. Dispose of old Battery Pack properly or recycle. Replace Battery Pack.
	4. Internal damage or wear. (Carbon brushes or Trigger, for example.)	4. Have technician service tool.
Tool operates slowly.	1. Forcing tool to work too fast.	1. Allow tool to work at its own rate.
	2. Battery Pack wearing out.	2. Dispose of old Battery Pack properly or recycle. Replace Battery Pack.
Motor runs, but tool does not plane (Knife Drum does not revolve).	Belt is damaged or broken.	Replace Belt. See *Replacing the Belt* on page 12.
Performance decreases over time.	1. Carbon brushes worn or damaged.	1. Have qualified technician replace brushes.
	2. Knife dull or damaged.	2. Replace as needed.
Excessive noise or rattling.	1. Internal damage or wear. (Carbon brushes or bearings, for example.)	1. Have technician service tool.
	2. Belt is worn, stretched or broken.	2. Replace Belt. (See *Replacing the Belt* on page 12).
Overheating.	1. Forcing tool to work too fast.	1. Allow tool to work at its own rate.
	2. Knife dull or damaged.	2. Replace as needed.
	3. Blocked motor housing vents.	3. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator while blowing dust out of motor using compressed air.

Follow all safety precautions whenever diagnosing or servicing the tool.
Disconnect Battery Pack and Charger power supply before service.

PLEASE READ THE FOLLOWING CAREFULLY

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Parts List

Part	Description	Qty
1	Adjustable Base Plate	1
2	Large Spring	1
3	Steel Ball, Ø3.5	1
4	Small Spring for Dial	1
5	Depth Gauge	1
6	Depth Knob	1
7	Lockup	1
8	Washer, M4	2
9	Screw, ST4.0 x 16	2
10	Depth Knob Cover	1
11	Screw, ST4.0 x 16	2
12	Knife Guard Plate	1
13	Spring	1
14	Screw, ST4.0 x 10 Flange, Ø11.5	1
15	Motor Cover	1
16	Screw, ST4.0 x 16	2
101	Housing Set	1
18	Right Housing	1
19	Left Housing	1
20	Contact Plate	1
21	Lead Wire	1
22	Spring	1
23	Switch Connection Lead	1
24	Lock Switch Button	1
25	Trigger Lock Switch	1
26	Washer	1
102	Motor Assembly	1
27	DC Motor	1
28	Screw, ST4.0 x 10	2
29	Terminals	1
30	Spring Washer	2
31	Screw, M5 x 8	2
32	Guide Wind Circle	1
33	Fan Baffle	1
34	Shaft	1
35	Dust Chute Plate	1
103	Blade Holder Assembly	1

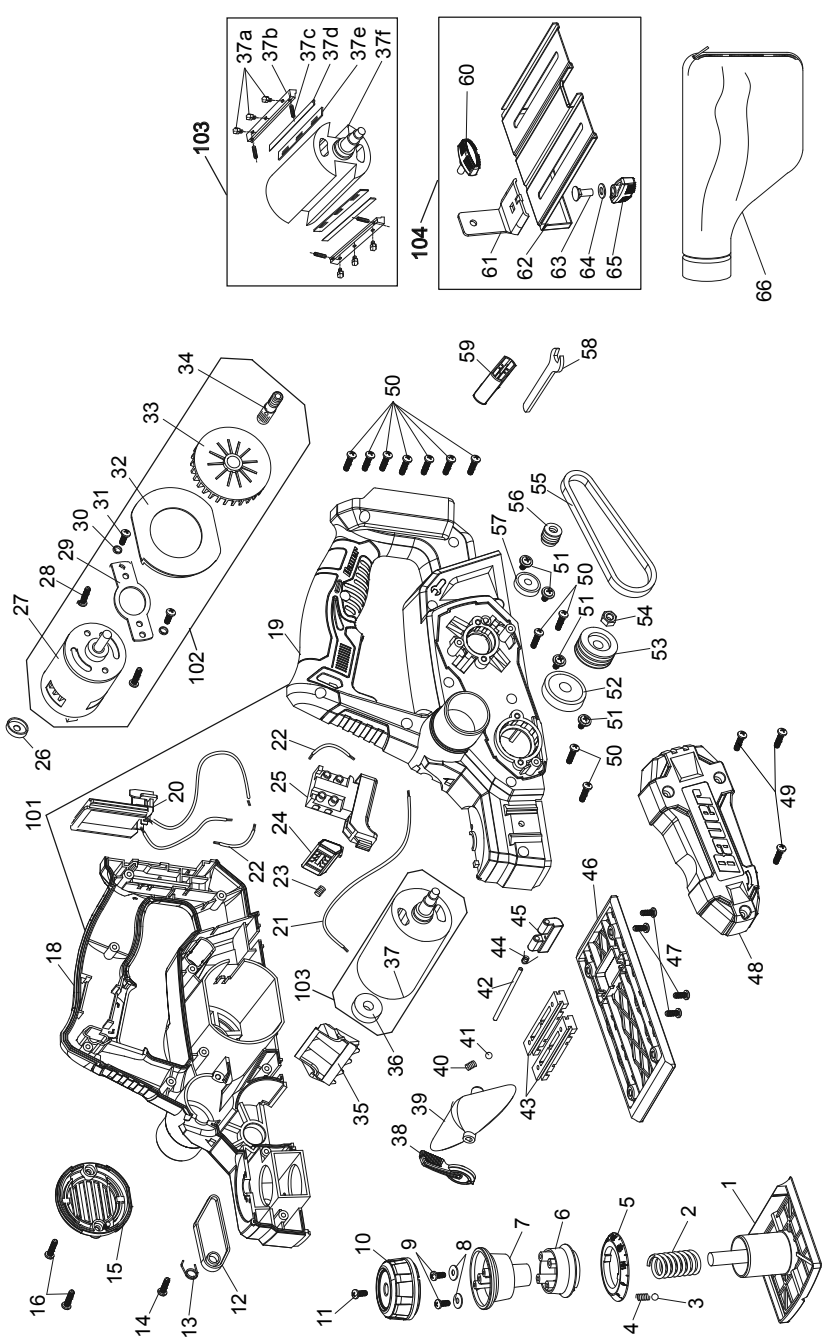
Part	Description	Qty
36	Needle Bearing 606-2Z	1
37a	Screw, M5 x 8	6
37b	Upper Blade Holder	2
37c	Screw, M5 x 8	4
37d	Knife HSS	2
37e	Lower Blade Holder	2
37f	Knife Drum	1
38	Dust Chute Pole	1
39	Dust Chute Switching Plate	1
40	Spring	1
41	Steel Ball, Ø3.5	1
42	Pin, 3 x 55	1
43	Plate Positioning Pole	2
44	Spring	1
45	Bottom Plate Support	1
46	Rear Base Plate	1
47	Screw, ST4.0 x 10	4
48	Belt Cover	1
49	Screw, ST4.0 x 16	3
50	Screw, ST4.0 x16	11
51	Screw, ST4.0 x 10, Flange Ø11.5	4
52	Bearing, 6200-2RS	1
53	Large Pulley	1
54	Nut, M6	1
55	Belt	1
56	Small Pulley	1
57	Needle Bearing, 608-2RS	1
58	Wrench	1
59	Wrench Sleeve	1
104	Fence Set	1
60	Bracket Knob	1
61	Angle Bracket	1
62	Edge Guide Fence	1
63	Bracket Bolt, 5 x 12	1
64	Washer, M5	1
65	Fence Knob	1
66	Dust Bag	1

Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175422187 when ordering parts.

Assembly Diagram



SAFETY

SETUP

OPERATION

MAINTENANCE

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. 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 product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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26541 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797