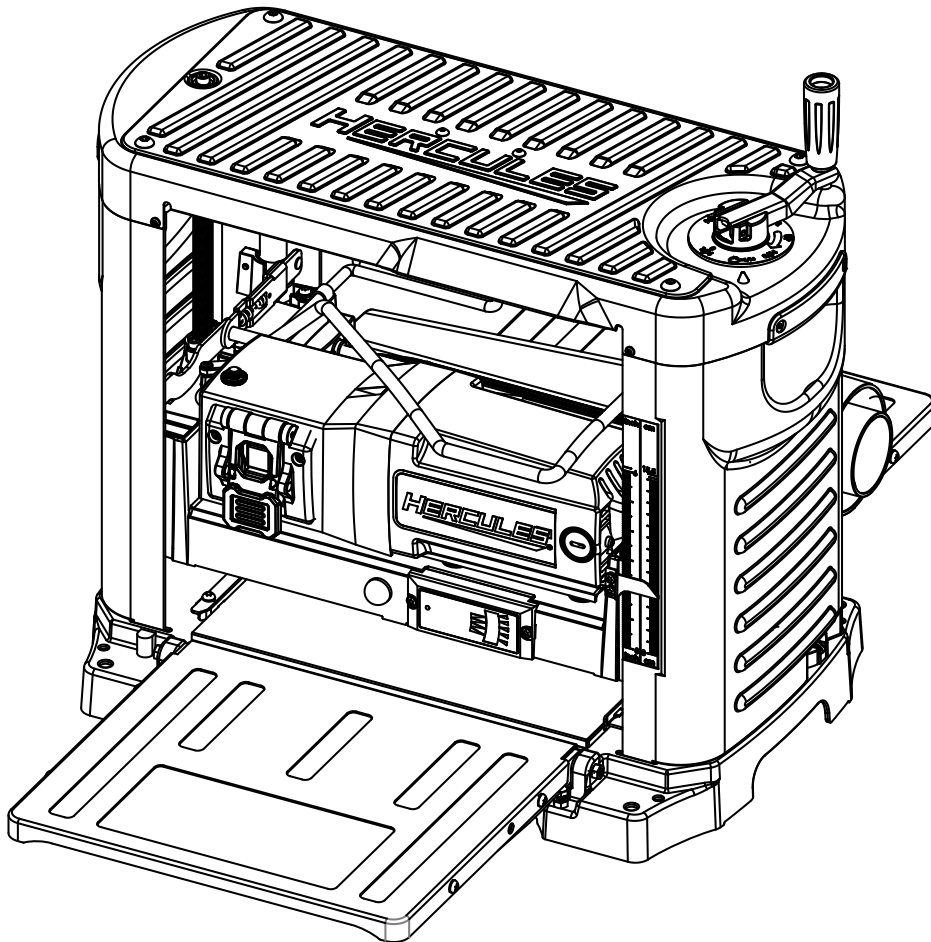


Model
HE091



12 1/2" Portable Thickness Planer

⚠WARNING: To prevent serious injury, User must read and understand Owner's Manual. **SAVE THIS MANUAL.**

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. Reference 59313.

IMPORTANT SAFETY INFORMATION

GENERAL TOOL SAFETY WARNINGS

⚠️ WARNING

Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.

Table A: RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS (120 VOLT)

NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH			
	25'	50'	100'	150'
0 – 6	18	16	16	14
6.1 – 10	18	16	14	12
10.1 – 12	16	16	14	12
12.1 – 16	14	12	Do not use.	

9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

10. WEAR PROPER APPAREL. Do not wear loose clothing, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
13. DON'T OVERREACH. Keep proper footing and balance at all times.
14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
16. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.
17. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.

Grounding

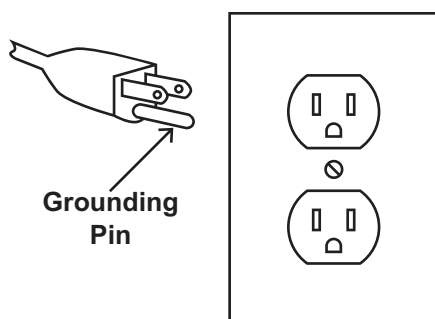


⚠️ WARNING

TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION READ AND FOLLOW THESE INSTRUCTIONS:

110-120 VAC

1. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
4. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
5. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
6. Repair or replace damaged or worn cord immediately.



**125 VAC 3-Prong Plug and Outlet
(for up to 125 VAC and up to 15 A)**

7. This tool is intended for use on a circuit that has an outlet that looks like the one illustrated above in **125 VAC 3-Prong Plug and Outlet**. The tool has a grounding plug that looks like the plug illustrated above in **125 VAC 3-Prong Plug and Outlet**.
8. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
9. Do not use an adapter to connect this tool to a different outlet.

Vibration Safety

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

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

Planer Safety Warnings

For Your Own Safety Read Instruction Manual Before Operating

1. Remove all foreign objects, such as nails or metal fragments, from the workpiece before planing.
2. Do not use to plane non-wood materials.
3. Do not plane workpieces shorter than 15", narrower than 3/4", wider than 12-1/2" or less than 1/8" thick.
4. Blades are very sharp and are double-edged! Wear heavy-duty leather work gloves at all times when replacing, adjusting, or handling a blade.
5. Change all 3 knives at once. Changing knives individually could result in imbalance.
6. Do not unclog dust chute with tool plugged in or blades moving. Do not insert your finger into the dust chute.
7. Connect dust chute to bag or dust collection system (not included) before use. Do not use without a dust bag or dust collection system.
8. **DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED. Moving guards must move freely and close instantly.**
9. The use of accessories or attachments not recommended by the manufacturer may result in a risk of injury to persons.
10. When servicing use only identical replacement parts.
11. 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.
12. 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.
13. Industrial applications must follow OSHA guidelines.
14. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
15. Avoid unintentional starting. Prepare to begin work before turning on the tool.
16. 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.
17. 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.

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

Addresses practices not related to personal injury.

Symbology

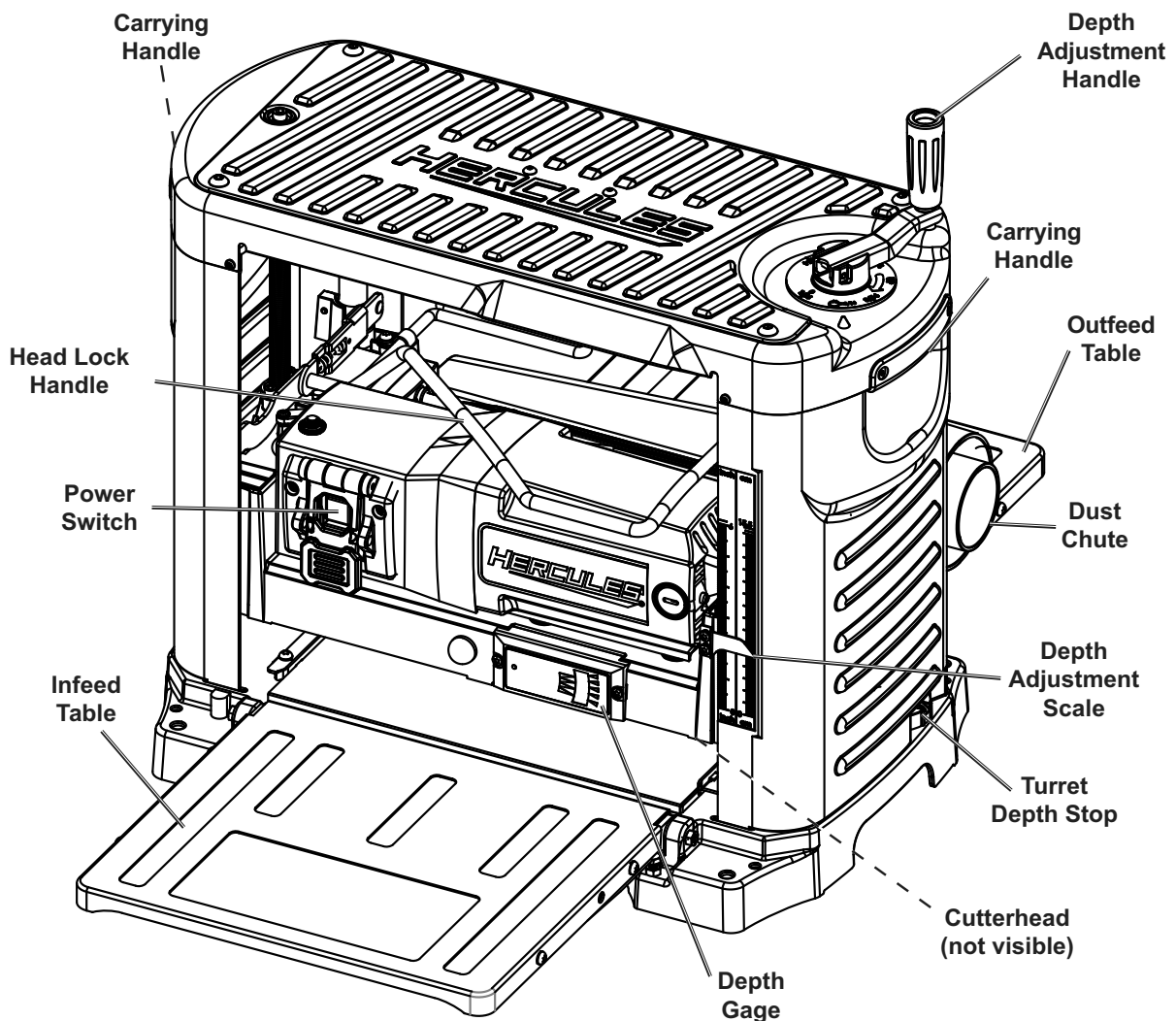
V	Volts
~	Alternating Current
A	Amperes
n_0 xxxx/min.	No Load Revolutions per Minute (RPM)
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields.
	Read the manual before set-up and/or use.
	Keep hands clear of fence area.

	WARNING marking concerning Risk of Fire. Do not cover ventilation ducts.
	WARNING marking concerning Risk of Electric Shock.

Specifications

Electrical Rating	120VAC / 60Hz / 15A
Motor Speed	21000 RPM
Maximum Cutting Depth	1/8" for 3" wide or less
	3/64" for 12" wide
Maximum Cutting Width	12-1/2"
Maximum Stock Thickness	6"
Dust Port Diameter	4" and 2-1/2"

Functional Description



OPERATION



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.

Tool Set Up

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the **Power Switch** of the tool off and unplug the tool from its electrical outlet before performing any procedure in this section.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Assembly/Mounting

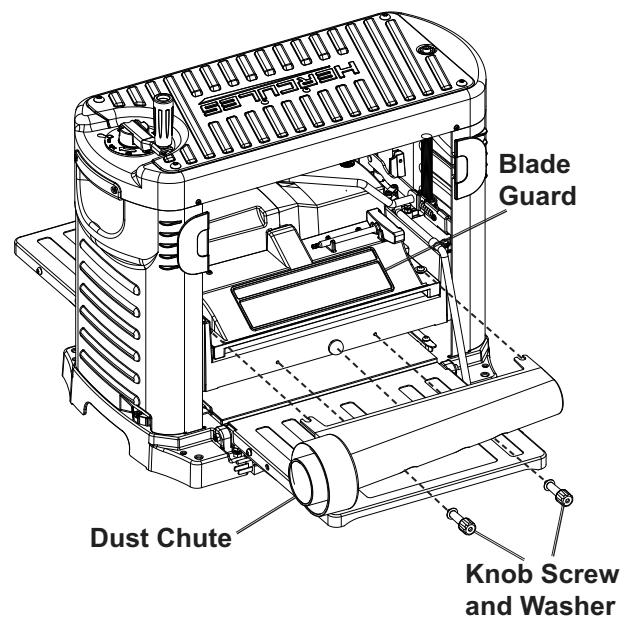
CAUTION! Attach Planer securely to solid and level surface that can support weight of Planer and workpiece, with enough clearance for movement of workpiece.

Note: Verify that mounting surface has no hidden components before drilling or driving bolts.

1. Use base to mark mounting holes on mounting surface.
2. Mount base to mounting surface using appropriate hardware (sold separately).

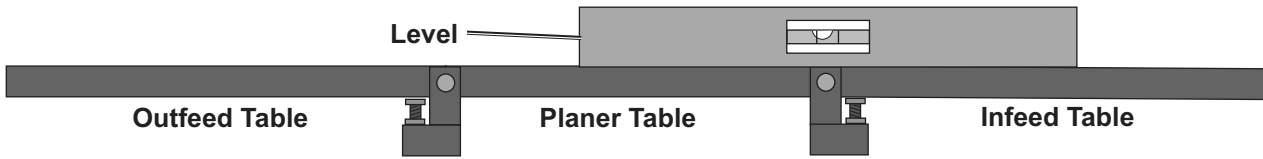
Installing Dust Chute

1. Loosen the screws on the Blade Guard sides.
2. Attach Dust Chute to Blade Guard, lining up the screw holes.
3. Place Washer on ends of each Knob Screw and finger tighten to secure.
4. Tighten Blade Guard Screws.

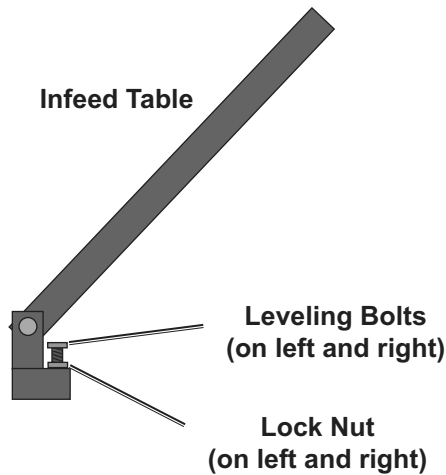


Leveling Table Extensions

1. Place a level (sold separately) across Planer Table and Infeed Table, then check level.



2. Loosen Lock Nuts.
3. Adjust as needed by lifting Infeed Table and adjusting Leveling Bolts beneath it.
4. Repeat with Outfeed Table.
5. Tighten Lock Nuts.



Workpiece and Work Area Set Up

1. 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.
2. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord to possible damage. The power cord must reach the work area with enough extra length to allow free movement while working.
3. There must not be objects, such as utility lines, nearby that will present a hazard while working.

General Operation

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM HAZARDS SUCH AS KICKBACK:

Do not plane workpieces shorter than 15", narrower than 3/4", wider than 12-1/2", or less than 1/8" thick. Use only natural dry woodstock which is free from nails, staples, knots, etc.

Feed into Planer in line with the grain.

Do not plane wood that is twisted, warped, knotted or bowed.

Note: If one side of workpiece is uneven, plane with flat side down first. If both sides are uneven, run one side through a jointer to flatten it before planing.

Note: Use Depth Adjustment Scale as a reference to indicate thickness of finished workpiece.

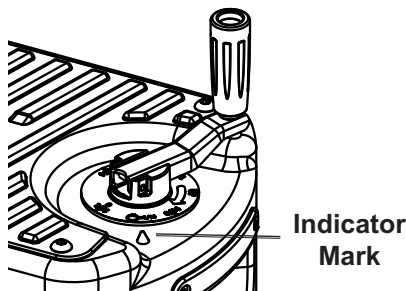
Note: Practice on scrap material until familiar with Planer's capabilities.

1. Make sure dust collection system is in place.
2. Make sure Power Switch is in the off-position.
3. Plug in Planer.

Note: Use calipers to measure workpiece.

Note: The Turret Depth Stop dial can be used to select one of three pre-set depths. Head is lowered to contact the stop. The depths are marked on the dial.

4. Place workpiece on Planer Table, then turn Depth Adjustment Handle *counterclockwise* to lower Cutterhead until it just touches workpiece.
5. Under the Depth Adjustment Handle; turn the indicator ring to line up the "ZERO" mark with the indicator mark on the machine.



6. Push the Head Lock Handle down.

WARNING! To prevent serious injury, do not turn Planer on with workpiece under Cutterhead.

7. Remove workpiece, then turn Depth Adjustment Handle *counterclockwise*. One full turn will remove 1/16" of material.

NOTICE: Do not remove more than 1/8" of material at one time (1-1/2 turns of Depth Adjustment Handle).

NOTICE: Keep long workpieces level by supporting them on both ends of Planer with stands or by other means.

8. The Turret Depth Stop can be set to stop the Planer at exact thicknesses. i.e. 3/8", 1/2", 3/4".
9. The Depth Gauge offers an alternative method of setting depth of cut. Slide workpiece beneath spring-loaded touch pin and lower the Cutterhead until pin contacts workpiece. Continue lowering until depth gauge reads desired depth of cut. Remove workpiece.
10. Turn on Planer by Pressing the green Power Button.
11. After Cutterhead has reached full speed, slowly guide workpiece into Planer until Infeed Roller takes control. Workpiece will auto feed through Planer, do not push on workpiece once it starts autofeeding.

WARNING! To prevent serious injury from kickback, stand on side nearest the switch and to the side.

WARNING! TO PREVENT SERIOUS INJURY: Keep hands out from underneath Cutterhead.

12. Retrieve workpiece from Outfeed side.

Note: If using assistant, Rollers may be used to transport workpiece from Outfeed to Infeed.

Note: If one or both ends of workpiece have a deeper cut, the problem may be snipe.

See Troubleshooting on page 12 for a solution.

Snipe



Figure A: Workpiece

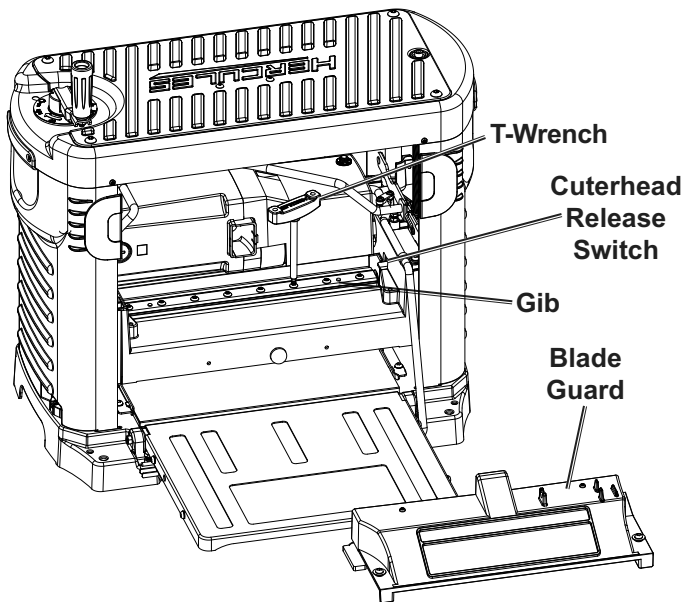
13. Continue to remove material until desired thickness is achieved.

NOTICE: To prevent damage from clogging, empty dust collection system frequently.

14. To prevent accidents, turn off tool by pressing the Paddle Switch, and unplug tool from its electrical outlet after use. Clean and lubricate according to **Maintenance and Servicing on page 10**, then store tool indoors out of children's reach.

Installing or Replacing the Blade

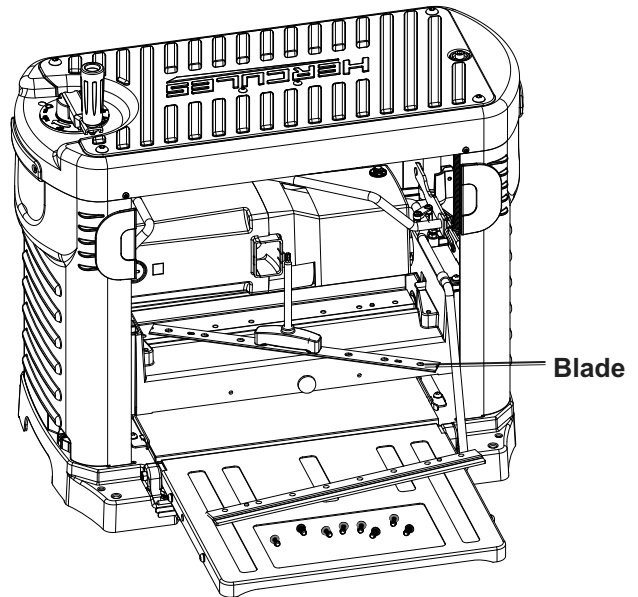
1. Turn Planer off and unplug from its electrical outlet.
2. Remove Screws on Blade Guard sides, and Knob Screws from Dust Chute.
3. Remove Dust Chute and Blade Guard from unit.



CAUTION! Blades are very sharp and are double-edged! Wear heavy-duty leather work gloves at all times when handling a blade.

4. Wearing gloves, push the Cutterhead Release Switch and rotate Cutterhead toward you until it locks into place.

5. Using included T-Wrench, remove eight Screws on Gib, then flip wrench over and use the magnet to remove Gib.



CAUTION! Change all three Blades at the same time. Changing Blades individually could result in imbalance.

6. Using magnet, remove Blade, rotate or replace, placing holes over Tabs.
7. Replace Gib and eight Screws, **tighten Screws securely.**
8. Push Cutterhead Release Switch to allow rotation to the remaining Blades.
9. Replace Blade Guard and two Screws, then tighten Dust Chute.

MAINTENANCE AND SERVICING



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

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment.

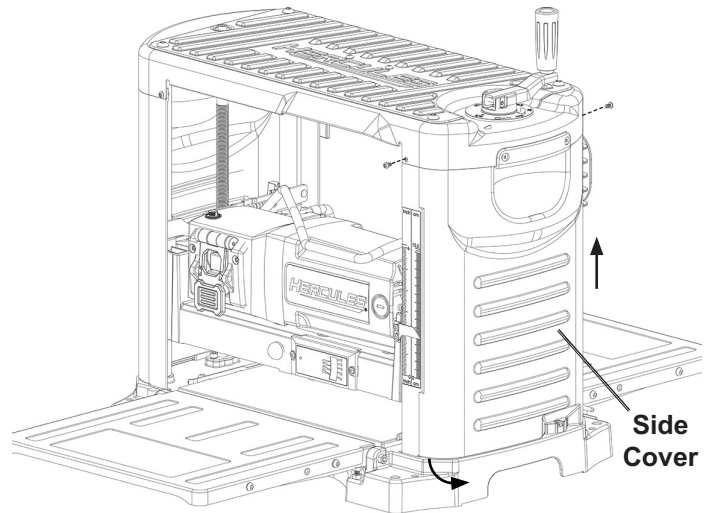
If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

- BEFORE EACH USE**, inspect the general condition of the tool. Check for:
 - loose hardware,
 - misalignment or binding of moving parts,
 - cracked or broken parts,
 - damaged electrical wiring, and
 - any other condition that may affect its safe operation.
- PERIODICALLY**, wear ANSI-approved safety goggles and NIOSH-approved breathing protection and blow dust out of the motor vents using dry compressed air.
- ⚠ WARNING! TO PREVENT SERIOUS INJURY:** If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.
- After Use:**
 - Wear ANSI-approved safety goggles and NIOSH-approved breathing protection, blow debris from Planer using dry compressed air.
 - Remove resin residue with pitch and gum remover.
 - Empty dust collection system.
 - Wipe external surfaces with clean cloth.
 - Wax tables.

Internal Maintenance

- Remove the two Screws on Side Cover.
- Lift up and tilt bottom out to remove Side Cover.

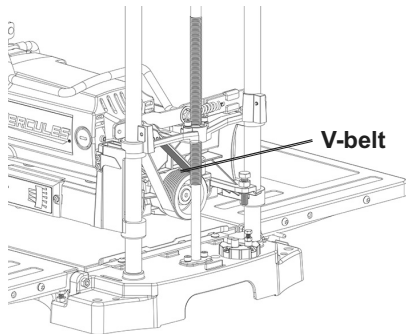


Lubrication

- Elevation Screws and Columns**
 - Remove both Side Covers.
 - Clean Elevation Screws and Columns.
 - Lubricate with a light coating of multipurpose grease (sold separately).
- Roller Chains**
 - Remove left Side Cover.
 - Use chain cleaner (sold separately) according to manufacturers instructions.
 - Lubricate with chain oil (sold separately), wipe off excess oil.

Replacing V-Belt

1. Remove right Side Cover.
2. Move Belt back and forth on pulleys, while pulling Belt away from pulleys, one groove at a time.




3. Put new Belt on upper pulley, then move Belt back and forth onto lower pulley, while pushing it onto pulley, one groove at a time.
4. Replace Side Cover.

Correcting Snipe

1. Slightly elevate the infeed and outfeed table ends and place a sacrificial board at each end of the workpiece.
2. Run the board in at a 15-30° angle. While inserting the board into the planer, lift both ends up slightly.
3. If snipe can not be avoided, mill the lumber a few inches longer and leave enough sacrificial material so that it can be cut out.

Troubleshooting

Workpiece		
Problem	Possible Causes	Likely Solutions
Deeper cut at ends of board (snipe).	<ol style="list-style-type: none"> 1. Too little support of long boards. 2. Uneven force on cutter head. 	<ol style="list-style-type: none"> 1. Provide better support for long boards. 2. Follow instructions according to Correcting Snipe on page 11.
Torn, ragged, rough or raised grain.	<ol style="list-style-type: none"> 1. Blades dull or damaged. 2. Cut is too heavy. 3. Blades cutting against grain. 4. Wood has a high moisture content. 	<ol style="list-style-type: none"> 1. Replace blades. 2. Reduce depth of cut. 3. Cut with grain. 4. Use dry wood.
Planer		
Problem	Possible Causes	Likely Solutions
Tool will not start.	<ol style="list-style-type: none"> 1. Cord not connected. 2. No power at outlet. 3. Internal damage or wear. (Carbon brushes or switch, for example.) 	<ol style="list-style-type: none"> 1. Check that cord is plugged in. 2. Check power at outlet. If outlet is unpowered, turn off tool and check circuit breaker. If breaker is tripped, make sure circuit is right capacity for tool and circuit has no other loads. 3. Have qualified technician service tool.
Tool operates slowly.	Extension cord too long or wire size too small.	Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See Table A on page 2.
Performance decreases over time.	<ol style="list-style-type: none"> 1. Blades dull or damaged. 2. Carbon brushes worn or damaged. 	<ol style="list-style-type: none"> 1. Replace blades. 2. Have qualified technician replace brushes.
Roller case adjustment difficult	<ol style="list-style-type: none"> 1. Sprockets and/or chain dirty. 2. Elevating screws and/or columns dirty. 3. Elevating screws worn. 	<ol style="list-style-type: none"> 1. Clean and lubricate sprockets and/or chain. 2. Clean and lubricate elevating screws and/or columns. 3. Replace elevating screws.
Chain jumping	<ol style="list-style-type: none"> 1. Sprockets worn. 2. Chain worn. 	<ol style="list-style-type: none"> 1. Have sprockets replaced. 2. Have chain replaced.
Belt Slipping	Loose belt	Replace belt.
Excessive dust in air	Leaking bag or loose connection.	Check connections or replace collection bag.
Excessive noise or rattling.	Internal damage or wear. (Carbon brushes, bearings, or fan for example.)	Have qualified technician service tool.
Overheating/ Circuit breaker tripping.	<ol style="list-style-type: none"> 1. Dull blades. 2. Forcing boards through planer. 3. Blade dull or damaged. 4. Cut is too heavy. 5. Motor being strained by long or small diameter extension cord. 	<ol style="list-style-type: none"> 1. Replace blades. 2. Allow auto feed to work at its own rate. 3. Replace blades. 4. Reduce depth of cut. 5. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See Table A on page 2.
 Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.		

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

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 193175465788 when ordering parts.

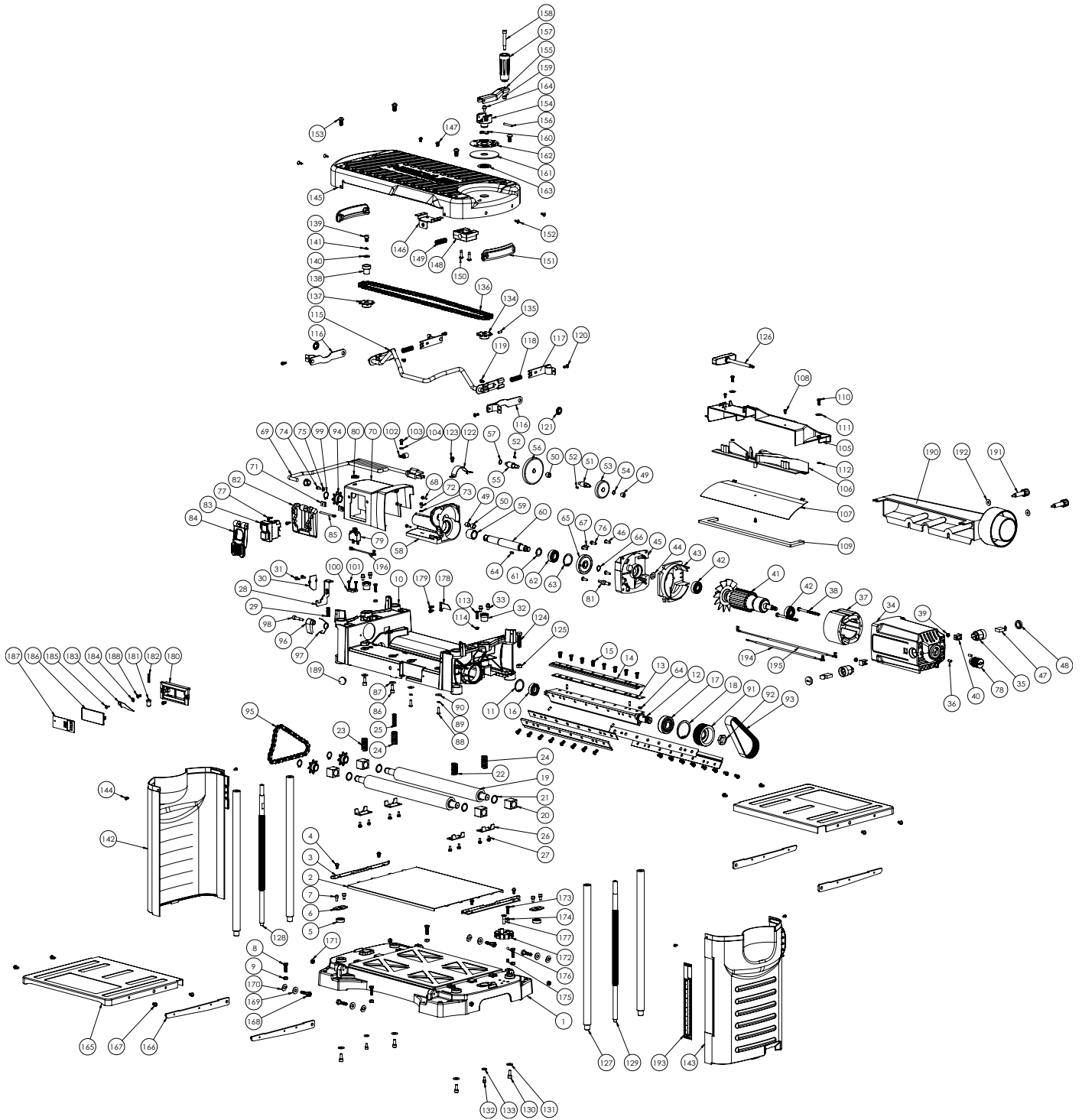
Parts List

Part	Description	Qty
1	Base	1
2	Base Board	1
3	Base Side Board	2
4	Screw	4
5	Bearing	2
6	Plate	2
7	Hex Screw	4
8	Hex Screw	4
9	Nut	4
10	Carriage	1
11	C-Ring	1
12	Cutter Head	1
13	Blade	3
14	Blade Plate	3
15	Screw	24
16	Bearing	1
17	Bearing	1
18	C-Ring	1
19	Roller	2
20	Roller Liner	4
21	Washer	4
22	Spring	1
23	Spring	1
24	Spring	2
25	Spring	1
26	Plate	4
27	Screw	8
28	Safety Lock	1
29	Spring	1
30	Platen	1
31	Screw	2
32	Block	2
33	Hex Screw	4
34	Motor Cover	1
35	Brush Seat	2
36	Set Screw	2
37	Stator	1
38	Screw	2
39	Nut	2
40	Nut Seat	2
41	Rotor	1
42	Bearing	2
43	Ring	1
44	Washer	1
45	Gear box (Right)	1
46	Screw	4
47	Brush	2
48	Brush cover	2
49	Liner	2
50	Liner	2
51	1st Gear (Small)	1
52	Double Circle Key	2
53	1st Gear	1
54	Washer	1
55	2nd Gear (Small)	1
56	2nd Gear	1
57	Washer	1
58	Gear box (Left)	1
59	Bushing	1
60	Output Shaft	1
61	Washer	1
62	Bushing	1
63	C-Ring	1
64	Double Circle Key	2
65	Spur Gear	1

Part	Description	Qty
66	C-Ring	1
67	Bolt	2
68	Screw	3
69	Power Cord	1
70	Switch box	1
71	Lock	2
72	Screw	1
73	Washer	1
74	Screw	1
75	Washer	1
76	Screw	1
77	Screw	2
78	Driving Wheel	1
79	Overload protector	1
80	Nut	1
81	Connector	1
82	Switch Seat	1
83	Switch	1
84	Paddle	1
85	Pin	1
86	Hex Screw	2
87	Washer	2
88	Screw	2
89	Washer	2
90	Washer	2
91	Belt Wheel	1
92	Nut	1
93	Belt	1
94	Chain Wheel	3
95	Chain	1
96	Plate	1
97	Spring	1
98	Hex Screw	1
99	C-Ring	3
100	Power Cord Clamp	1
101	Screw	2
102	Ring	1
103	Screw	1
104	Washer	1
105	Dust Collector	1
106	Dust Board	1
107	Dust Board	1
108	Screw	3
109	Foam	1
110	Screw	2
111	Washer	2
112	Ring	2
113	Hex Screw	2
114	Nut	2
115	Head Lock Handle	1
116	Plate A	2
117	Plate C	2
118	Spring	2
119	Screw	2
120	Screw	4
121	Nut	2
122	Cover	1
123	Screw	1
124	Hex Screw	1
125	Nut	1
126	T-wrench	1
127	Rod	4
128	Screw Rod (Left)	1
129	Screw Rod (Right)	1
130	Hex Screw	4

Part	Description	Qty
131	Washer	4
132	Hex Screw	2
133	Washer	2
134	Chain Wheel (Right)	1
135	Screw	1
136	Chain	1
137	Chain Wheel (Left)	1
138	Bushing	1
139	Hex Screw	1
140	Washer	1
141	Washer	1
142	Side Cover (Left)	1
143	Side Cover (Right)	1
144	Screw	4
145	Top Cover	1
146	Chain Seat	1
147	Hex Screw	2
148	Block	1
149	Spring	1
150	Screw	2
151	Carry Handle	2
152	Screw	4
153	Screw	4
154	Handle Boss	1
155	Crank	1
156	Pin	1
157	Elevation Handle	1
158	Screw	1
159	Nut	1
160	Washer	1
161	Elevation Label	1
162	Scale	1
163	Nut	1
164	Hex Screw	1
165	Extension Plate	2
166	Supporter	4
167	Screw	8
168	Screw	4
169	Washer	4
170	Washer	4
171	Nut	4
172	Turntable	1
173	Hex Screw	1
174	Nut	1
175	Spring	1
176	Ball	1
177	Screw	1
178	Height indicator	1
179	Screw	2
180	Indicator Box	1
181	Indicator Pin	1
182	Indicator Spring	1
183	Indicator	1
184	Spacer Ring	1
185	Screw	1
186	Cover	1
187	Depth Gauge Label	1
188	Screw	2
189	Pad	2
190	Dust Tube	1
191	Screw Knob	2
192	Flat Washer	2
193	Scale	1
194	Rotor Outlet Line-Blue	1
195	Rotor Outlet Line-Black	1
196	Overload Protector Wire	1

Assembly Diagram



LIMITED 90 DAYS 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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26677 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797