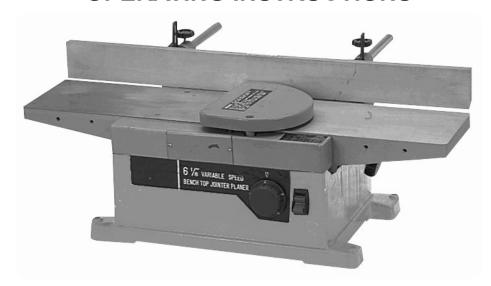


# 6-1/8" JOINTER PLANER

**Model 34434** 

# **OPERATING INSTRUCTIONS**



Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

Distributed exclusively by Harbor Freight Tools®.

3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: http://www.harborfreight.com



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

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For technical questions or replacement parts, please call 1-800-444-3353.

#### **SPECIFICATIONS**

Max. planing width: 6-1/8"
Max. planing depth: 1/8"

Cutting Rate: 16,000-32,000 CPM

Table size: 6-1/8" x 28"
Tool weight: 26-3/4 lbs.
Motor: 1-3/4 HP

1200 watts input

10,000-21,000 RPM no load speed 8000-16,000 RPM under load

115V 60 Hz

#### SAVE THIS MANUAL

You will need this manual for the safety instructions, assembly instructions, operating procedures, parts list, and warranty. Put them in a safe, dry place for future reference.

#### **IMPORTANT SAFETY INSTRUCTIONS**

WARNING: When using electric tools, machines or equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.
READ ALL INSTRUCTIONS BEFORE USING THIS TOOL

- 1. KEEP WORK AREA CLEAN. Cluttered areas invite injuries.
- 2. CONSIDER WORK AREA CONDITIONS. Don't use machines or power tools in damp, wet, or poorly lit locations. Don't expose to rain. Keep work area well lit. Don't use tools in the presence of flammable gases or liquids.
- 3. KEEP CHILDREN AWAY. All children should be kept away from the work area. Don't let them handle machines, tools or extension cords.
- 4. STORE IDLE EQUIPMENT. When not in use, tools should be stored in a dry location to inhibit rust and locked up. If possible, also store in an area out of reach of children.
- 5. DON'T FORCE THE MACHINE OR TOOL. It will do the job better and more safely at the rate for which it was intended.
- 6. USE THE RIGHT TOOL. Don't force a small tool or attachment to do the work of a larger industrial tool. Don't use a tool for purpose for which it was not intended.
- 7. DRESS PROPERLY. Don't wear loose clothing or jewelry. They can be caught in moving parts. Protective, non-electrically conductive gloves and non-skid footwear are recommended when working. Wear protective hair covering to contain long hair, preventing it from getting caught in machinery.
- 8. USE SAFETY EQUIPMENT. Wear ANSI-approved safety goggles, hearing protection and a NIOSH-approved dust mask/respirator under a full face shield during set up, service, and use.
- 9. DON'T ABUSE THE POWER CORD. Never carry a tool by its cord. Do not yank it to disconnect it from receptacle. Do not move bench-mounted or floor-standing machines with the power cord

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- in the outlet. Keep cord away from heat, oil, and sharp edges.
- 10. DON'T OVERREACH. Keep proper footing and balance at all times. Do not reach over or across machines which are running.
- 11. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have them repaired by an authorized service facility. Keep handles dry, clean, and free from oil and grease.
- 12. DISCONNECT POWER. When not in use, before servicing, and when changing accessories such as blades, bits, and cutters. Never leave tool until it comes to a complete stop.
- 13. REMOVE ADJUSTING KEYS AND WRENCHES. Make it a habit to check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
- 14. AVOID UNINTENTIONAL STARTING. Be sure the switch is in the OFF position when not in use.
- 15. OUTDOOR EXTENSION CORDS. When the equipment is operated outdoors, use only extension cords intended for outside use.
- 16. STAY ALERT. Watch what you are doing, use common sense. Don't operate any tool when you are tired.
- 17. CHECK DAMAGED PARTS. Before using any tool, any 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 other conditions that may affect its operation. Any part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in the instruction manual. Have defective switches replaced by an authorized service center. Don't use the tool if switch does not turn on and off properly.
- 18. GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces: pipes, radiators, ranges, and refrigerator enclosures.
- 19. REPLACEMENT PARTS. When servicing, use only identical replacement parts.
- 20. DO NOT OPERATE TOOL IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate machine.
- 21. USE RECOMMENDED ACCESSORIES. Consult owner's manual for recommended accessories. Using improper accessories may increase the risk of injury.
- 22. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or the blade is accidentally touched.
- 23. KEEP GUARDS IN PLACE AND IN WORKING ORDER. Never operate machine unless all guards are functioning properly.
- 24. NEVER USE A TOOL IF ITS COVER OR ANY BOLTS ARE MISSING. If the cover or bolts have been removed, replace them prior to use. Maintain all parts in good working order.

#### JOINTER-PLANER SAFETY PRECAUTIONS

- 1. Never perform jointing or planing with cutter block assembly or drive guard removed.
- 2. Never make jointing or planing cuts deeper than 1/8".
- 3. Always use push blocks when jointing or planing material.
- 4. Make sure workpiece is free from nails and any other foreign object which could break or otherwise damage the blade.

- 5. Make sure blade is properly attached (as described in the operating instructions) before plugging in.
- 6. Be careful not to cut your hand on the blade when installing or removing the blade.
- 7. Never put your finger into the chip exhaust outlet.
- 8. Turn switch on and allow the blade to reach full speed before using.
- 9. Do not perform jointing operations on stock shorter than 8-1/8", narrower than 3/4", or less than 1/4" thick.
- 10. Do not perform planing operations on material shorter than 8-1/8", narrower than 3/4", wider than 6-1/8", or thinner than 1/2".
- 11. Feed the work into a blade or cutter against its rotation only.
- 12. Never start the machine under load. Allow machine to reach full speed before engaging stock to the cutter.
- 13. This tool is intended for residential use only.
- 14. Make sure stock is supported at all times during operation. Use a roller stand with larger pieces if necessary.
- 15. Maintain control of workpiece at all times. Never allow stock to rest on moving cutter without holding on to it.
- 16. Do not attempt to perform an operation with which you are unfamiliar. Re-read the appropriate operating procedures so that you completely understand the use of hold-down/push blocks, jigs, fixtures, stops, and any other information pertaining the operation.

#### **GROUNDING INSTRUCTIONS**

- 1. This machine has a three-prong plug, the third (round) prong being the ground. Plug the machine's cord only into a three-prong receptacle. Don't attempt to defeat the protection the ground wire provides by cutting off the round prong.
- 2. If a three-prong receptacle is not available, you may use an adapter, but you must then connect the green ear on the adapter to the outlet. Unscrew the center screw of the outlet cover and put the screw through the green ear. Plug the two prongs into the outlet, and replace the screw in the outlet. Now plug the machine into the adapter.

#### **VOLTAGE WARNING**

Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is about the same as that specified on the nameplate of the tool. If one says 120V and the other says 115V then there will be no complications. Never try to plug a 115V tool into a 230V outlet, or the other way around. The plug and outlet have completely different shapes. This is because a power source with a voltage greater than that specified on the tool can result in a SERIOUS INJURY to the user— as well as damage to the tool. If in doubt, DO NOT PLUG IN THE TOOL. Using a power source with voltage (115V) less than the nameplate rating (230V) is harmful to the motor.

#### **UNPACKING**

When unpacking, make sure the following accessories are included: blade adjustment gauge, "T" wrench, screwdriver, dust collection outlet, push block and fence angle gauge.

#### INSTALLATION

- 1. The Jointer Planer should be installed permanently to a sturdy workbench for best results. Each corner of the base should be fixed securely to the surface by using bolts, nuts and washers.
- 2. If you wish your Jointer Planer to be portable, the following mounting instructions should be followed. Use a solid piece of wood *(not particle board)* with a minimum thickness 3/4". This base must also be at least 36" L x 20"W. Bolt the Jointer Planer to the base with bolts, nuts and washers. When using the machine, clamp it firmly to a stable and secure location for best results.

#### WARNING: CHECK BLADE SETTING AND TIGHTNESS BEFORE INITIAL USE.

#### ADJUSTMENTS & OPERATIONS

#### **Cutting Depth Adjustment**

**CAUTION!** Turn the machine off, unplug and wait until blades reach a complete stop before adjusting the cutting depth!

1. To decrease the cutting depth, turn the depth control knob (67) clockwise; this will raise the infeed table. To increase the cutting depth, turn the dial counter-clockwise.

**CAUTION!** Never adjust the cutting depth so that it exceeds 1/8"!

2. To check your cutting depth adjustment, first put the depth adjustment gauge plate on the outfeed table and allow it to hang over the infeed table. Use a ruler with the proper graduations and measure from the bottom of the gauge to the top of the outfeed table. This will indicate your cutting depth.

#### **Fence Adjustment:**

- 1. To adjust, angle your fence angle (0°-45°), loosen both fence angle adjustment levers (52). Adjust to desired angle to according to the scale and tighten both levers.
- 2. To adjust the position of the fence on the table, loosen both fence adjustment knobs (39). Adjust to desired position and then tighten. This should be done when you desire only a certain section of the board to be planed or jointed.
- 3. When you have completed adjusting the fence, be certain that the auxiliary blade guard (45) is over the cutter head assembly.

#### Replacing and Adjusting Blade:

**CAUTION!** Turn the machine off, unplug and wait until blades reach a complete stop before adjusting the cutting depth!

NOTE: Both blades must be replaced simultaneously or else the balance will be affected.

- 1. Loosen the two screws (54) holding the belt cover (29) on and remove it.
- 2. To fix the cutter head assembly (58) in place, pull the "U" shaped lock pin (36) out and reposition it in the upper hole on the back of the machine. (See associated label on the back of the Jointer Planer.) Rotate the drive belt (28) by hand until assembly "clicks" into place. A small hole is provided in the pulley (73), which will accept a probe for easier turning.

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- 3. Prop the blade guard (41) open.
- 4. Remove the four bolts (58-5) and the blade holder (58-3). The blade (58-4) can now be removed from cutter head assembly.
- 5. After mounting a new blade on the assembly, slightly tighten the four bolts just enough that the blade does not move.
- 6. Move the infeed table up to its highest position. (It should be level with the outfeed table.)
- 7. Place the blade adjustment gauge on the outfeed and infeed tables.
- 8. The blade adjustment gauge should barely touch the edge of the blade when at its highest position. Adjust the blade's position in the holder as necessary using the blade adjustment screws (58-1). Be extremely careful to turn both screws an identical amount, otherwise, the accuracy of your machine will be affected.
- 9. Tighten the four bolts to secure the blade holder.
- 10. Repeat steps 4-9 for the other blade.
- 11. When you've completed replacing/adjusting both blades, close the blade guard and replace the belt cover.
- 12. MAKE SURE TO MOVE THE LOCK PIN BACK TO THE RELEASED POSITION WHEN FINISHED!

#### Speed Adjustment:

Your Jointer Planer variable speed adjustment is used to obtain the best results depending upon three conditions:

- 1. Type of material
- 2. Width of cut
- 3. Depth of cut

The chart below shows what speed to set your machine at depending on these conditions. The If there is no CPM indicator for a particular material/width/depth selection, do not cut under those settings. You must engage in more than one pass to achieve the desired results. Examples:

- 1. If you have 6" wide piece of plastic material from which you wish to plane 1/16", you must first set you CPM at 24,000. Then you must make four 1/64" from one side, and then four from the other side.
- 2. If you wish to plane off 1/16" of 6" wide hardwood, you must make two passes at 1/32", with the speed selection dial set at 32,000 CPM.

Your dial has five indications. A=16,000 CPM; B=20,000 CPM; C=24,000 CPM; D= 28,000 CPM; E=32,000 CPM. These values represent CPM under load.

DESIRED PLANING WIDTH		CPM Setting by Material and Depth of Cut						
	1/64" Depth	1/32" Depth		1/16" Depth		1/8" Depth		
	Plastics	Soft Wood	Hard Wood	Soft Wood	Hard Wood	Soft Wood	Hard Wood	
Less than 1-1/2"	16,000	16,000	16,000	24,000	24,000	32,000		
1-1/2" to 2-3/8"	20,000	20,000	24,000	28,000	32,000			
2-3/8" to 3-1/8"	24,000	24,000	28,000	32,000	32,000		Ī	
3-1/8" to 4"		32,000	32,000					
4" to 6-1/8"		32,000	32,000					

#### **Feeding Stock:**

**CAUTION:** You should always use the push blocks with every operation. You must use the push blocks when working with stock that is less than 3" wide or thick.

*CAUTION:* Never feed with your hand on the end of the stock! Serious injury may result.

- 1. Always hold your stock firmly against the fence.
- 2. Always feed at an even rate along the entire length. Hesitations or stops will result in marred and uneven finishes. Do not feed too fast.
- 3. Apply even pressure. Start feeding with your left hand forward and your right a couple inches

behind. As your right hand passes over the blades, move your left hand behind the right. Continue shifting in this fashion until all of your stock has been planed.

### **Bevel Planing:**

- 1. Set the fence to the desired angle.
- 2. Move the fence in or out along the table to accommodate the desired planing width.
- 3. Plane along the edge of the stock. Make sure you are pushing the sock firmly against the fence.

#### **MAINTENANCE**

### **V-Belt Replacement:**

- 1. Remove the Jointer Planer from the wooden base.
- 2. Remove the belt cover (29).
- 3. Turn the machine over. Remove the base screen (10) by unscrewing the six M4 x 12 screws (8).
- 4. Remove the base (22) by removing the eight M5 x 30 screws (20). When lifting the base off, be careful not to loosen any of the attached wires.
- 5. Remove the V-belt by simultaneously turning and pulling outward on it.
- 6. Install the new V-belt by simultaneously turning and pushing inward on it.
- 7. Reattach the base, screen and belt cover. Reattach the Jointer Planer to the wooden base.

#### **Brush replacement:**

- 1. Follow steps 1 4 as described in V-Belt Replacement (above).
- 2. Remove the two brush caps (57-8) and remove the brushes (57-7). If they are worn past the indicator line, they must be replaced.
- 3. When installing the new brushes, guide the spring into the holder (57-6) and hold it in until the cap is in position.
- 4. Reattach the base, screen and belt cover. Reattach the Jointer Planer to the wooden base.

#### Fence Angle Adjustment Lever (52) adjustment:

If one of the Fence Angle Adjustment Levers (52) contacts the Fence (44) while tightening, preventing it from fully tightening, perform the following steps:

- 1. Loosen the Tapping Screw (54) enough so that the Fence Angle Adjustment Lever can turn without turning the Lock Bolt (46/51).
- 2. Turn the Fence Angle Adjustment Lever until it has enough room to travel to allow proper operation.
- 3. Make sure the Fence Angle Adjustment Lever (52) is pressed against the Lock Bolt (46/51) snugly. Tighten the Tapping Screw (54) securely. Test the fence for proper operation before use.

# TROUBLE SHOOTING

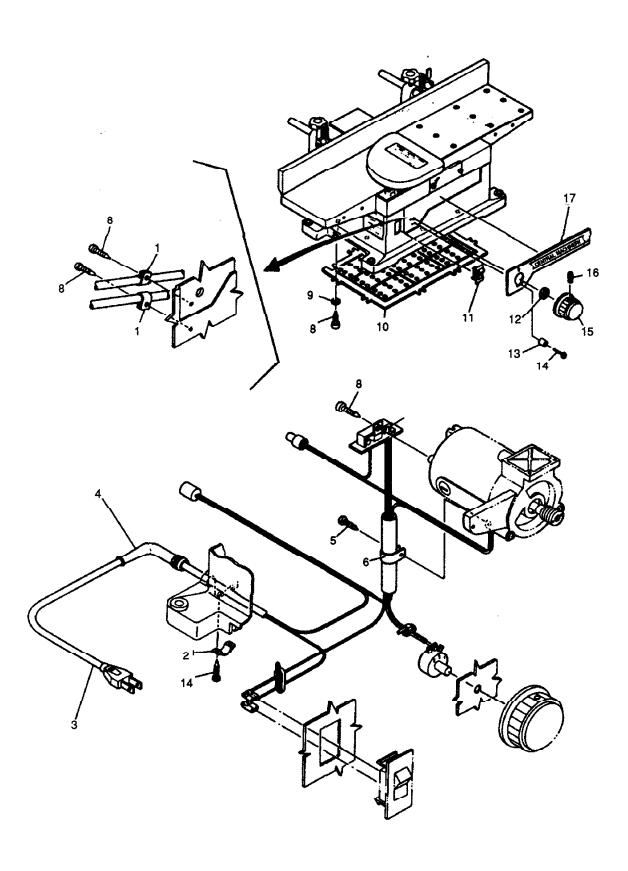
Problem • Planer will not start	<ul> <li>Probable Cause</li> <li>Not plugged in</li> <li>Fuse or circuit blown</li> <li>Socket does not function</li> </ul>	<ul> <li>Solution</li> <li>Plug in</li> <li>Replace fuse or reset circuit</li> <li>Test socket with current tester or trying another tool in socket</li> <li>If socket doesn't work, have it replaced by a qualified electrician</li> </ul>
	Worn brushes	Replace brushes
	Damaged cord or plug	Have cord replaced by a qualified technician
	Switch not functioning	<ul> <li>Have switch replaced by a qualified technician</li> </ul>
	Motor not working	<ul> <li>Contact Harbor Freight Tools for servicing</li> </ul>
• Planer starts, but cutter head does not move	Worn or broken belt	Replace belt
<ul> <li>Planer starts and cutter head moves, but wood is uncut</li> </ul>	<ul><li>Blade not extended far enough</li><li>Belt worn and slipping</li></ul>	<ul><li>Adjust for more cutting depth</li><li>Replace belt</li></ul>
Operation interrupted	Forcing unit     Overloaded circuit	<ul> <li>Apply less pressure</li> <li>Use on isolated circuit</li> <li>Check for adequate amp rating.</li> <li>Install proper fuses/breakers</li> <li>for circuit</li> </ul>
• Rough/fuzzy grain	<ul><li>Blade setting too deep</li><li>High moisture content</li></ul>	<ul><li>Reduce setting</li><li>Dry wood before planing</li></ul>
Grain is torn	<ul><li>Blade setting too deep</li><li>Dull cutter blades</li></ul>	<ul><li>Reduce cutting depth</li><li>Replace</li></ul>

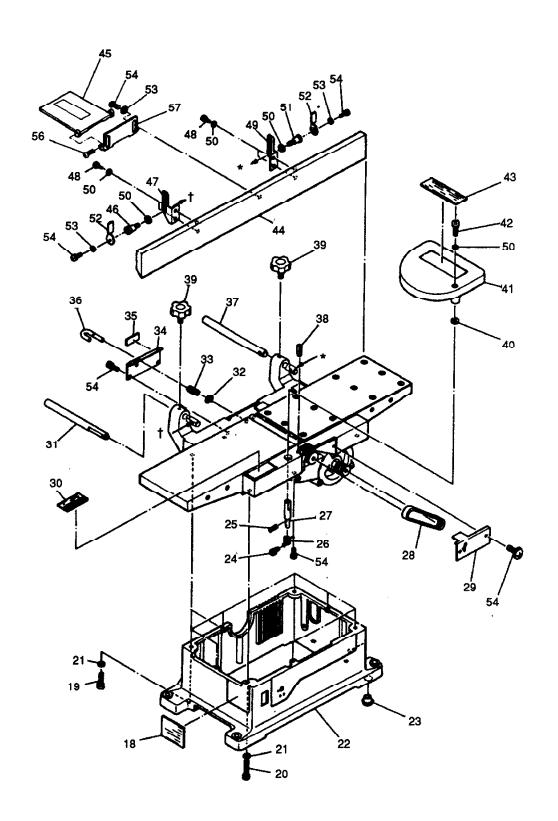
# PARTS LIST

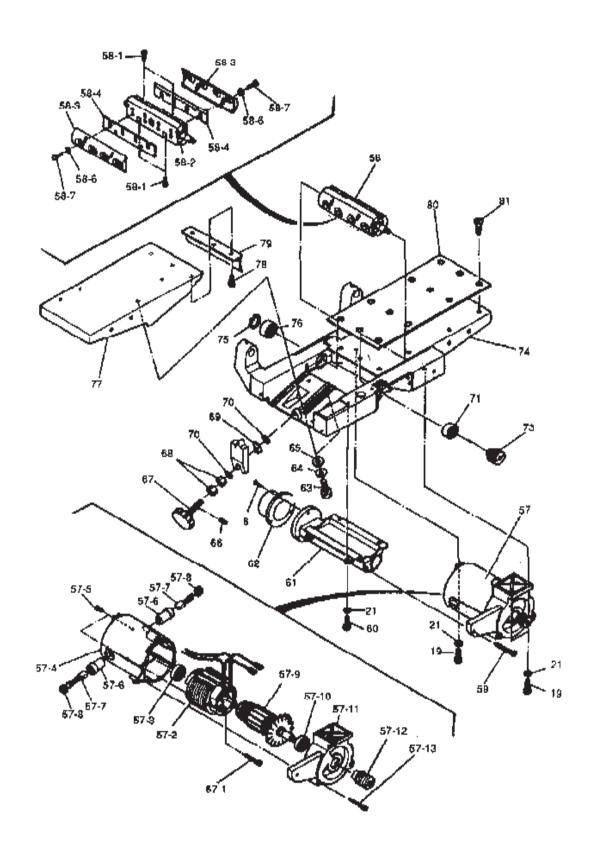
No.	Description	No.	Description
1	Cord Clamp	13	Collar
2	Strain Relief	14	M4 x 16 Tapping Screw
3	Cord	15	Speed Control Dial
4	Cord Holder	16	M4 x 10 Screw
5	M5 x 12 Tapping Screw	17	I.D. Label
6	Nylon Clip	18	Specifications Plate
7	Speed Control Circuit	19	M5 x 25 Pan Screw
8	M4 x 12 Tapping Screw	20	M5 x 30 Pan Screw
9	Washer	21	Washer
10	Base Screen	22	Base
11	Switch	23	Rubber Foot
12	Felt Washer	24	M3 x 6 Pan Screw

No.	Description
25	3 x 10 Spring Pin
26	Spring
27	Blade Guard Shaft
28	Drive Belt
29	Belt Cover
30	Speed Settings Label
31	Fence Shaft A
32	E3 Retaining Ring
33	Spring
34	Back Cover
35	Blade Caution Label
36	Lock Pin
37	Fence Shaft B
38	6 x 25 Spring Pin
39	Fence Knob
40	Washer
41	Blade Guard
42	M6 x 30 Pan Screw
43	Guard Caution Label
44	Yence
45	Auxiliary Blade Guard
46	Lock Bolt B
47	Guide Plate B
48	M6 x 12 Pan Screw
49	Guide Plate A
50	Washer
51	Lock Bolt A
52	Fence Angle Adjustment Lever
53	Washer C
54	M4 x 10 Tapping Screw
55	Auxiliary Guard Bracket
56	M3 x 8 Tapping Screw
57	Motor Assembly
57-1	M5 x 60 Tapping Screw
57-2	Coil
57-3	6200LLB Ball Bearing
57-4	Motor Housing
57-5	M5 x 14 Tapping Screw
<b>57</b> -6	Brush Holder
<b>57</b> -7	Carbon Brush
57-8	Brush Cap
57-9	Armature Assembly
57-10	· · · · · ·
57-11	Motor Cover
57-12	•
57-13	M5 x 55 Tapping Screw

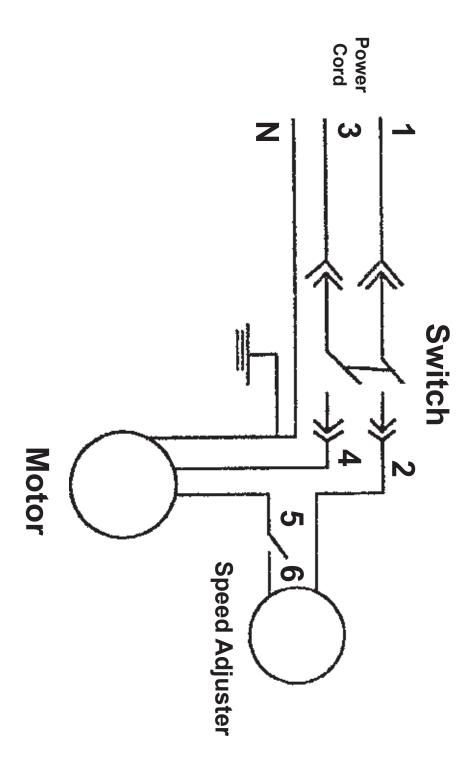
No. 58 58-1 58-2 58-3 58-4 58-5 59 60 61 62 63 64	Description Cutter Head Assembly M5 x 17 Adjustment Screw Cutter Block Blade Holder Blade M6 x 17 Hex Head Bolt M4 x 20 Tapping Screw M5 x 16 Phillips Screw Interior Blade Cover Dust Outlet M6 x 20 Hex Head Bolt M6 Spring
65 66 67 68 69 70 71	M6 Washer 3 x 16 Spring Pin Depth Control Knob M8 Hex Nut Spacer Washer 6201LLB Ball Bearing
73 74 75 76 77 78 79 80 81	Pulley Outfeed Table Block Ring 6200LLB Ball Bearing Infeed Table M4 x 8 Pan Screw Dust Deflector Outfeed Table Shoe M4 x 10 Flat Screw







# **Wiring Diagram**



# **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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