Owner's Manual & Safety Instructions

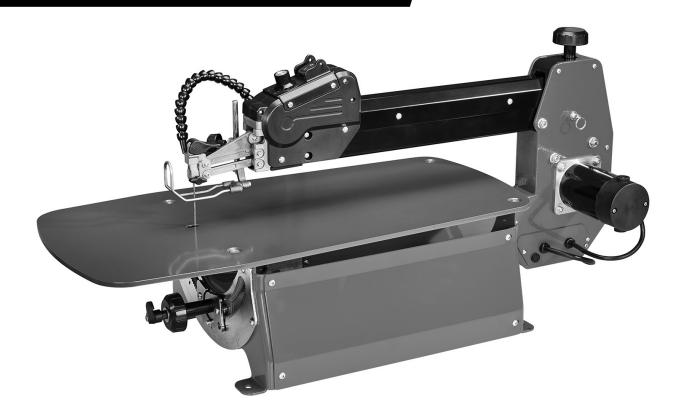
Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual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

24b



23703E-B

VARIABLE-SPEED SCROLL SAW



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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.

AWARNING

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			
A	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.		
ACAUTION	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 Tool Safety Warnings

AWARNING

Read all safety warnings and 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.
- 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.
- 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.

FOR EXTENSION CORDS (120 VOLT)				
NAMEPLATE AMPERES	EXTENSION CORD LENGTH			RD
(at full load)	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 no	t use.

Toble A. DECOMMENDED MINIMUM WIDE CALICE

Table A

- 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, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.

- DON'T OVERREACH.
 Keep proper footing and balance at all times.
- 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.
- 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.
- 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.
- DIRECTION OF FEED.
 Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- 21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

Grounding Instructions



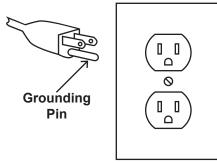
AWARNING

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

110-120 VAC Grounded Tools: Tools with Three Prong Plugs

- 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.
- 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.
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

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.

Scroll Saw Safety Warnings

For Your Own Safety Read Instruction
Manual Before Operating Scroll Saw

- 1. Wear eye protection.
- 2. DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED. Moving guards must move freely and close instantly.
- The use of accessories or attachments not recommended by the manufacturer may result in a risk of injury to persons.
- 4. When servicing use only identical replacement parts.
- 5. 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.

- 6. 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.
- 7. Industrial applications must follow OSHA guidelines.
- Maintain labels and nameplates on the tool.
 These carry important safety information.
 If unreadable or missing, contact
 Harbor Freight Tools for a replacement.
- Avoid unintentional starting.
 Prepare to begin work before turning on the tool.

- 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.
- 11. 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.

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:

- 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.
- Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
- 3. Use tools with the lowest vibration when there is a choice between different processes.
- 4. Include vibration-free periods each day of work.
- 5. Grip workpiece as lightly as possible (while still keeping safe control of it). Let the tool do the work.
- 6. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.



SAVE THESE INSTRUCTIONS.

Specifications

Electrical Rating	120VAC / 60Hz / 1.3A S1, 1.6A S2 30min
Arm Tilt	45° Right and 30° Left
Max Cutting Thickness	2"
Blade Type	5" L Pinless Blade
Throat Depth	22"
Blade Stroke	3/4"
Cutting Speed	360 to 1600/min
Base Mounting Holes	4x Ø10mm (3/8") holes
Accessories	4x Adjustable Foot, Ø30 x 11mm with M8 Bolts and Nuts 1x Hex Key S4 x 65mm 1x Hex Key S3 x 58mm 1x Spare 5" L Pinless Blade

Setup - Before Use:



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

AWARNING

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

Attaching to Bench Top

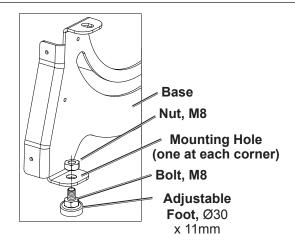
- Pick a solid wood workbench to attach the Saw.
 The workbench must be stable, and able to support the weight of the Saw and the material being cut.
- Find the four 3/8" mounting holes in corners of the Saw's Base and mark through the holes for drilling with a 3/8 inch drill bit (drill and bit sold separately). Remove Saw and drill pilot holes.
- Replace Saw over holes and attach with the following hardware (sold separately): Four sets of 1/4" bolts, washers, lock washers, and nuts.
- Check that all mounting screws and nuts are tight before using the Saw.

Placing on Bench Top

- Pick a solid wood workbench to mount the Saw.
 The workbench must be stable, and able to support the weight of the Saw and the material being cut.
- Find the four 3/8" mounting holes, one in each corner of the Saw's Base. Attach one Ø30 x 11mm Adjustable Foot (accessory) to each hole using the supplied M8 Bolt and Nut. Tighten to secure.

<u>Caution:</u> Do not carry Saw by Upper Arm or Motor. Carry Saw by Base or Table.

Check that the feet are secure then place the Saw on a level Bench top. Check that the Saw is stable and flat on the bench before using it.

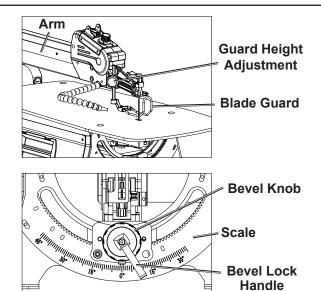


Align Bevel Scale Indicator

Note: The Bevel Scale Indicator has been adjusted at the factory but should be checked before using the Saw.

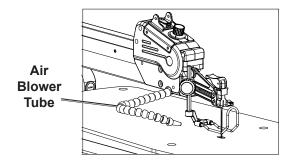
- 1. Loosen the Guard Height Adjustment knob and move the Blade Guard all the way up.
- 2. Verify the Indicator is pointing to "0" degrees on the Scale. If its not, loosen the Bevel Lock Handle and turn the Bevel Knob until the Arm is at the right angle to the Blade and the Indicator is pointing to "0".
- 3. Retighten Bevel Lock Handle.

Note: The Bevel Scale Indicator is only a guide and should not be relied upon for precision settings. Make practice cuts in scrap wood to determine if the angle settings are correct.

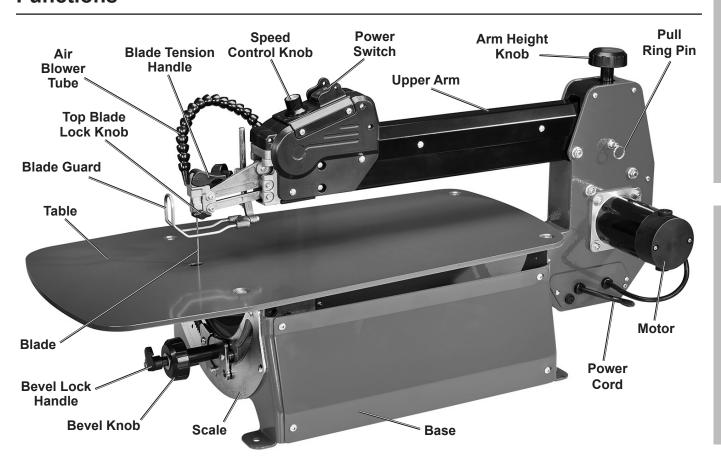


Adjust Dust Blower Tube

Adjust the Air Blower Tube so the air is directed at both the blade and workpiece.



Functions



Operating Instructions



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

AWARNING

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:

DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED.

Moving guards must move freely and close instantly.

Arm Angle Adjustment

The Saw Arm can be adjusted between 45° Right and 30° Left as follows:

 Loosen the Bevel Lock Handle and move the Arm using the Bevel Knob until the desired angle is reached as indicated on the Scale. **Note:** The Arm has positive stops at: Right 0, 22.5, 30, 45° Left 30°.

2. Tighten the Bevel Lock Handle.

Workpiece and Work Area Set Up

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

Turning On and Adjusting Speed

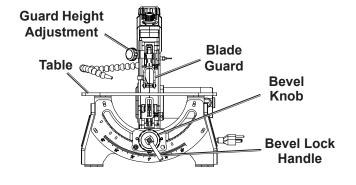
- Plug Power Cord into a 120VAC grounded AC receptacle.
- 2. To turn Saw ON, set the Power Switch (I/O) to "I".
- 3. Set speed (strokes per minute) by turning the Speed Control Knob. When first starting the Saw, set the knob to the middle then turn toward "H" to increase speed and toward "L" to lower the speed.
- 4. To turn Saw OFF, set the Power Switch to "O".

AWARNING! TO PREVENT SERIOUS INJURY: Keep hands and fingers away from the moving Saw Blade.

5. To prevent accidents, turn Power Switch OFF, and unplug the Saw from its electrical outlet after use. Clean, then store the Saw indoors out of children's reach.

Straight, Cross, Bevel Cuts, and Ripping

- Using a pencil, mark the design cut-line on the workpiece.
- Slide the workpiece underneath the Blade Guard foot. If necessary, adjust the foot by loosening the Guard Height Adjustment knob and sliding the foot up or down until it lightly rests on the workpiece.
 Tighten the Guard Height Adjustment knob. Do not allow the workpiece to contact the Blade yet.
- Turn the Power Switch ON and the Blade will start moving.

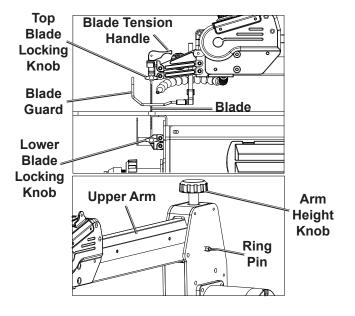


- Using both hands, carefully guide the workpiece into the Blade. Press down on the workpiece and slowly guide it through the Saw Blade. Do not force the material through the Blade or the Blade could break.
- When cutting is complete, move workpiece beyond the Blade Guard foot and turn Power Switch OFF. Unplug the Saw from its electrical outlet after use.

Inside Cuts

- 1. Using a pencil, mark the cut-line on the workpiece.
- 2. Drill a pilot hole in the workpiece that is a little larger than the blade width.
- Loosen Blade from top clamp by flipping the Tension Handle up and loosening the Top Blade Locking Knob.
- 4. Gently lift the Upper Arm of the Saw, then once at desired height, listen for a "click" that signifies the Arm has locked in place.
- 5. Carefully guide blade through pilot hole while lowering workpiece to table. Do not deflect blade.
- While holding the Upper Arm, pull the Ring Pin and guide the Arm down so that the Blade is fee back into the top clamp. Be sure Arm locks ("clicks") in place.
- Turn Arm Height Knob to adjust the Arm's vertical position. Then secure blade by tightening Top Blade Locking Knob and pushing the Blade Tension Handle down.
- 8. Adjust the Blade Guard foot by loosening the Guard Height Adjustment knob and sliding the foot up or down until it lightly rests on the workpiece.
- 9. Use one hand to hold workpiece and other hand to turn the Power Switch ON.
- 10. Hold workpiece with both hands while guiding and pressing down on it until the cut is complete.

- 11. When finished turn the Power Switch OFF and unplug the Saw from the electrical outlet.
- Flip the Blade Tension Handle up. Loosen the Top and Lower Blade Locking Knobs.
 Loosen the Blade Guard foot and remove the Blade.
- 13. Raise the Upper Arm away from the workpiece and ensure it clicks in place. Remove the workpiece.
- 14. Reattach Saw Blade by following steps 2-5 in Removing and Installing Blades on page 11.



Curved Cuts

- 1. Mark the entire cutting line with a pencil. If a template is available, use it as a marking guide.
- 2. Slide the workpiece underneath the Blade Guard foot. If necessary, adjust the foot by loosening the Guard Height Adjustment knob and sliding the foot up or down until it lightly rests on the workpiece. Tighten the Guard Height Adjustment knob. **Do not allow the workpiece to contact the Blade yet.**
- 3. Turn the Power Switch ON.
- Using both hands, carefully guide the workpiece into the Saw Blade. Press down on the workpiece and slowly guide it through the Blade. Do not force the material through the Blade.

- When cutting curves, be careful not to twist the Blade out of line.
- 6. If the curve cut is forced off the cut-line, back the material off the Saw Blade and start a new, straight cut through a scrap section of the material. Begin the curved cut again from an appropriate angle point.
- 7. When cutting is complete, move workpiece beyond the Blade Guard foot and turn Power Switch OFF. Unplug the Saw from its electrical outlet after use.

Jamming of Saw Blade and Workpiece

- If the Saw Blade jams in the workpiece, immediately turn the Power Switch OFF and unplug the Power Cord from its electrical outlet.
- Wait until the Saw Blade has come to a complete stop, then remove the Saw Blade as described in Removing and Installing Blades on page 11. The workpiece will come with it.
- 3. Place a flat bladed screwdriver in the cut and force it open. Remove the Saw Blade.
- Reinstall the Saw Blade on the machine and set the proper tension as described in Removing and Installing Blades on page 11.

Maintenance and Servicing



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

AWARNING

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 and Maintenance

- 1. **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
 - any other condition that may affect its safe operation.
- 2. **AFTER USE**, wipe external surfaces of the tool with clean cloth.
- 3. Periodically recheck all nuts, bolts, and screws for tightness.
- 4. Applying a light coat of paste wax on the Saw Table allows the material being cut to glide smoothly across the Table surface. Buff the wax off with a clean cloth after application.
- Periodically apply a light coat of dry lubricant to the inside of the blade bevel rails.
 The motor bearings, interior bearing, and table bevel rail bearings are all sealed and require no additional lubrication.

 Wear ANSI-approved safety goggles and NIOSH-approved breathing protection, and clean the Saw by using compressed air to blow off dirt and dust.

Note: Use low-pressure compressed air, not exceeding 25 PSI, around the blade holders, blade bevel rails, and blade.

- 7. Store in a clean and dry location.
- 8. Over time, if the performance of the Saw diminishes, or it stops working completely, it may be necessary to replace the Carbon Brushes in the Motor by removing the Carbon Brush Holder and inspecting the Carbon Brushes. This procedure should be completed by a qualified technician. If the Carbon Brushes are not worn down, try cleaning the Carbon Brush tips with an ink eraser.

AWARNING! TO PREVENT SERIOUS INJURY: If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.

Removing and Installing Blades

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 making any adjustments to the Blade.

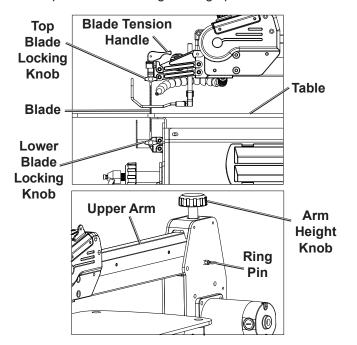
Note: Replacement blades sold separately.

- Flip the Blade Tension Handle up.
 Loosen the Top and Lower Blade Locking Knobs.
 Remove the Blade.
- Before installing the new Blade, verify the Upper Arm is perfectly parallel to the work table. This will ensure the Blade cuts perpendicular to the work table.
- 3. Slide Blade into the blade clamp deep enough to gain sufficient clamping surface, but not all the way which can result in the Blade being too short for sufficient gripping by the upper blade clamp.

Note: The Saw Blade must be installed so that its teeth are facing forward (front cutting) and always pointing down.

- Tighten the Lower Blade Locking Knob to lock the Blade in place.
- 5. Insert the top of the Blade into the top clamp and tighten the Top Blade Locking Knob.
- Push the Blade Tension Handle down. If needed, turn the Arm Height Knob to fine tine the blade tension.

<u>Note:</u> A properly tensioned Blade will make a high-C sound (C6, 1047 Hz) when plucked with a finger. Over or under tensioning of the blade may cause premature breakage during operation.



Blade Selection

Woodworking blade sizes range from #3/0 to #12. Choose the appropriate blade for the type wood to be cut, thickness, and type of cut to be done. The blade should be five inches long and pinless.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Blades breaking	Wrong blade tension.	Adjust blade tension.
	2. Over-working blade.	2. Reduce feed cut rate.
	3. Wrong blade application.	Use narrow blades for cutting thin wood, wide blades for cutting thicker wood.
	4. Blade twisting in wood.	4. Avoid side pressure on blade.
Motor does	No power at outlet.	Check power source.
not run	2. Defective power cord or plug.	2. Repair or replace defective parts.
	3. Defective motor.	Have motor repaired or replaced by a qualified service technician.
	4. Worn carbon brush.	4. Have carbon brush replaced by qualified technician.
Excessive	Improper base mounting.	Make sure mounting hardware is secure.
Vibration	Unsuitable mounting surface.	2. The heavier the work bench, the less vibration will occur.
	3. Loose motor mounting.	3. Check that motor mounting hardware is secure.
Blade not in line with arm motion	Blade holders not aligned.	Flip the Blade Tension Handle up, then loosen the Top and Lower Blade Locking Knobs. Once adjusted, push the Blade Tension Handle back down. Then, turn the Arm Height Knob to adjust the Arm's vertical position.
Tool will	Power cord not connected.	Check that cord is plugged in.
not start	2. No power at outlet.	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.
	Tool's thermal reset breaker tripped (if equipped).	Turn off tool and allow to cool. Press reset button on tool.
	4. Internal damage or wear. (Carbon brushes or switch, for example.)	4. Have 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 3.
Performance	Saw blade dull or damaged.	Replace saw blade.
decreases over time	2. Carbon brush worn or damaged.	2. Have qualified technician replace brush.
Excessive noise or rattling	Internal damage or wear. (Carbon brushes or bearings, for example.)	Have technician service tool.
Overheating	Forcing machine to work too fast.	Allow machine to work at its own rate.
	2. Saw blade dull or damaged.	2. Replace saw blade.
	Motor being strained by long or small diameter extension cord.	3. 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 3.



Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power cord 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.

Record Product's Serial Number Here:

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

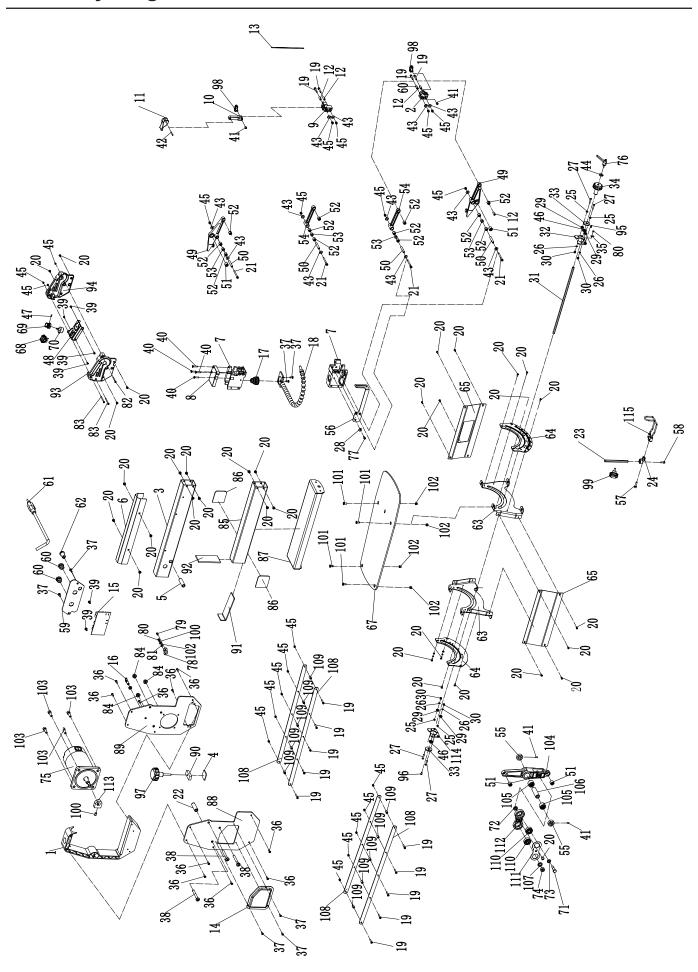
Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175469687 when ordering parts.

Parts List

D4	December 41 and	04
Part	Description	Qty
1	Housing Guard Board	1
2	Lower Adaptor	1
3	Upper Supporting Tube	1
4	Upper Supporting Pad	1
5	Upper Supporting Spindle	1
6	Upper Supporting Backplate	1
7	Upper Arm Base	2
8	Pull Rod Slide Block	1
9	Adaptor Support	1
10	Upper Adaptor	1
11	Blade Tension Handle	1
12	Bearing Bush 2	4
13	Blade (accessory	_
13	blade not shown)	2
14	Left Housing Insert	1
15	PCB R3	1
16	Pull Ring Pin, M8	1
17	Bellows	1
18	Air Blower Tube	1
19	Hex Socket Screw, M4 x 20	14
20	Hex Socket Screw, M5 x 8	33
21	Hex Socket Screw, M4 x 40	4
22	Housing Stiffened Pipe	1
23	Adjusting Rod	1
24	Drop Foot Base	1
25	Bearing Spacer Bush	4
26	Bearing Pad	4
27	Dome Screw, M6 x 25	4
28	Flat Washer, D5	1
29	Bearing 606	4
30	Nut, M6	4
31	Tension Rod, M8	1
32	Bearing Pressure Plate	1
33	Gear Pressure Plate	2
34	Bevel Knob	1
35	Pointer	1
36	Phillips Screw, ST3.9 x 12	10
37	Hex Socket Screw, M4 x 10	8
38	Hex Screw, M8 x 65	3
39	Phillips Screw, ST3.5 x 6-F	6
40	Hex Socket Screw, M4 x 20	4

Part	Description	Qty
41	Hex Socket Screw, M6 x 8	4
42	Spring Column Pin, 3 x 18	1
43	Big Washer, D4	16
44	Big Washer, D8	1
45	Lock Nut, M4	21
46	Steering Gear, M1.5Z14	2
47	Hex Socket Screw, M4 x 8	1
48	Switch Box Cover	1
49	Big Arm	2
50	Bearing Bush 3	3
51	Needle Bearing HK0810	4
52	Needle Bearing HK0609	12
53	Bearing Pad	4
54	Small Arm	2
55	Swing Axle Sleeve	
56	Blade Guard Foot	1
57	Hex Socket Screw, M5 x 20	1
58	Hex Socket Screw, M4 x 12	1
59	Right Housing Insert	1
60	Strain Relief 6P-4	2
61	Power Cord	1
62	Overload Protector Base	1
63	Panel	2
64	Scale	2
65	Side Plate	2
67	Table	1
68	Power Switch	1
69	Speed Control Knob	1
70	Potentiometer	1
71	Set Bolt	1
72	Washer	1
73	Spring Washer, D10	1
74	Nut, M8	1
75	Motor	1
76	Bevel Lock Handle	1
77	Hex Socket Screw, M5 x 10	1
78	Ground Plate	1
79	Phillips Screw, M4 x 10	1
80	Phillips Screw, M4 x 6	2
81	Star Washer, D4	1
82	Phillips Screw, M4 x 40	1
83	Phillips Screw, M4 x 50	2
84	Lock Nut, M8	3

Part	Description	Qty	
85	Lower Support	1	
	Lower Support		
86	Direction Plate	2	
	Lower Support		
87	Direction Bracket	1	
88	Left Housing Plate	1	
89	Right Housing Plate	1	
90	Tension Bracket	1	
91	Housing Spacing Board	1	
92	Housing Connecting Board	1	
93	Left Switch Box	1	
94	Right Switch Box	1	
95	Positioning Screw, M8 x 12	1	
96	Hex Screw, M8 x 20	1	
97	Blade Tension Knob	1	
98	Blade Locking Knob	2	
99	Arm Height Knob	1	
100	Hex Socket Screw, M6 x 10	1	
101	Hex Socket Screw, M8 x 20	4	
102	Nut, M8	4	
103	Hex Socket Screw, M6 x 16	4	
104	Eccentric Swinging Rod	1	
105	Needle Bearing, HK1412	2	
106	Swing Axle	1	
107	Spring Washer, D8	1	
108	Pull Plate	4	
109	Bearing Bush 1	10	
110	Bearing, 628-2Z	2	
111	Connection Rod	1	
	Pressure Plate	ı i	
112	Eccentric Rod	1	
113	Eccentric Wheel	1	
114	Bearing Pressure Plate	1	
115	Blade Guard Foot	1	
116	Adjustable Foot,	4	
	Ø30 x 11mm (not shown)	-	
117	Nut, M8 (not shown)	4	
118	Bolt, M8 (not shown)	4	
119	Hex Key, S4 x 65mm	1	
110	(not shown)		
120	Hex Key, S3 x 58mm	1	
~	(not shown)		



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.

