

## **16 INCH VARIABLE SPEED**

# **SCROLL SAW**

**Model 93012** 

#### **ASSEMBLY AND OPERATING INSTRUCTIONS**



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# 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**

Motor	120 V~, 1 phase, 60 Hz, 0.4 A (startup)
Switch	Toggle, On/Off, with removable locking key
Table Tilt	0 to 45 degrees (left)
Cutting Depth	2 inches (maximum)
Blade Type	5" L Pin End blade; Can use plain end blade with provided adapters. 15 TPI blade mounted on machine
Throat Depth	16 inches
Blade Stroke	1 inch
Cutting Speed	400 (min.) to 1600 Strokes per Minute; Variable
Base Mounting Holes	4 - 5/16 inch (dia.) holes
Accessories	2 - Hex Wrenches (2.5 and 4 mm); 2 - Plain end Blade Adapters; 1 - Spare 18 TPI Saw Blade
Features	Drop foot adjustment, Integrated bellows air pump, 1-1/2" OD Vacuum port



#### **Save This Manual**

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

#### **GENERAL SAFETY RULES**

#### riangleWARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

#### SAVE THESE INSTRUCTIONS

#### **Work Area**

- 1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- 2. **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.
- 3. **Keep bystanders, children, and visitors away while operating a power tool.**Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

#### **Electrical Safety**

- Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.
- 2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 3. Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- 4. Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
- 5. Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately. Damaged Power Cords increase the risk of electric shock.
- 6. When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W". These extension cords are rated for outdoor use, and reduce the risk of electric shock.

#### **Personal Safety**

- 1. Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- 2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- 3. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Plugging in power tools with the Power Switch on, invites accidents.
- 4. Remove adjusting keys or wrenches before turning the power tool on. A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.

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

#### **Tool Use and Care**

- 1. Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- 2. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- 3. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.
- 4. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- 5. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- 6. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
- 7. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
- 8. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

#### **Service**

- 1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 2. When servicing a tool, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance, And Cleaning" section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

### SPECIFIC SAFETY RULES FOR THIS PRODUCT

1. **Maintain labels and nameplates on the Scroll Saw.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

- 2. Always wear ANSI approved safety impact eye goggles, dust mask and heavy work gloves when using the Scroll Saw. Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
- 3. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
- 4. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the Scroll Saw.
- 5. **Do not force the Scroll Saw.** This tool will do the work better and safer at the speed and capacity for which it was designed.
- 6. Always unplug the Scroll Saw from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
- 7. **Never leave the Scroll Saw unattended while running**. Turn power off if you have to leave the Scroll Saw.
- 8. **Before each use, check all nuts, bolts, and screws for tightness**. Vibration during use may cause these to loosen.
- 9. Keep extension cord off the ground and away from water.
- 10. Always connect the Line Cord to a Ground Fault Circuit Interrupter (GFCI) protected electrical outlet.
- 11. **Install this product on a proper surface**. Locate on a flat, level, and solid surface that is capable of supporting the weight of the Scroll Saw.
- 12. **Do not try to cut material too small to be securely held by hand**. Cuts to hands can occur.
- 13. Avoid awkward hand positions where a sudden slip could cause hand contact with the blade.
- 14. When cutting a long piece of material, make sure it is supported off the table at the same table height.
- 15. Hold the workpiece firmly against the table.
- 16. **Do not feed material too fast while cutting.**
- 17. **Use caution when cutting off round material such as dowel rods or tubing**. They have a tendency to roll while being cut causing the Blade to "bite."
- 18. If the blade binds in the workpiece when backing out of the cut, immediately turn the saw power Off and carefully back material off Blade.

- 19. 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.
- 20. **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: lead from lead-based paints, crystalline silica from bricks and cement or other masonry products, arsenic and chromium from chemically treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (California Health & Safety Code § 25249.5, *et seq.*)

#### **GROUNDING**



Improperly connecting the grounding wire can result in electric shock.



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 tool. Never remove the grounding prong from the plug. Do not use the tool 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.

#### **Grounded Tools: Tools with Three Prong Plugs**

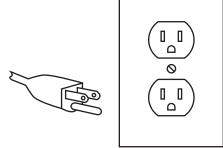
- 1. Tools marked with "Grounding Required" have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See 3-Prong Plug and Outlet.)
- 2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the

tool's grounding system and must never be attached to an electrically "live" terminal. (See 3-Prong Plug and Outlet.)

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3. The tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration.

(See 3-Prong Plug and Outlet.)



3-Prong Plug and Outlet

#### **Extension Cords**

- 1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
- 2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. (See Table A.)
- 3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. (See Table A.)
- 4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. (See Table A.)
- 5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.

  (See Table A.)
- 6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
- Make sure the extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
- 8. Protect the extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120/240 VOLT)					
NAMEPLATE AMPERES	EXTENSION CORD LENGTH				
(at full load)	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10		-
16.1 – 20.0	12	10	-	-	-
TABLE A	* Based on limit	ing the line volta	ge drop to five vo	olts at 150% of the	e rated amperes.

#### **Symbology**

	Double Insulated	V~	Volts Alternating Current
<b>●</b> ®	Canadian Standards Association	A	Amperes
(UL)	Underwriters Laboratories, Inc.	n <sub>0</sub> xxxx/min.	No Load Revolutions per Minute (RPM)

#### **UNPACKING**



When unpacking, check to make sure that all the parts are included. Refer to the Assembly section, and the Assembly Drawing and Parts List at the end of this manual.

If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

#### **ASSEMBLY INSTRUCTIONS**

#### **Mounting Scroll Saw to Workbench**

- 1. Pick a solid, wood workbench to mount the saw. The workbench must be stable, and able to support the weight of the Scroll Saw and the material being cut.
- 2. Find the four 5/16 inch mounting holes in the Base (9) and mark through the holes for drilling with a 3/8 inch drill bit. Remove Scroll Saw to drill holes.
- 3. Replace Scroll Saw over holes and mount with the following hardware (not supplied): 4 Hex Head Screws, 1/4 inch x 20 x length required; 4 Flat Washers, 9/32 I.D.; 4-Lock Washers, 9/32 I.D.; and 4-Hex Nuts, 1/4 x 20.
- 4. Check that all Scroll Saw screws and nuts are tight before using the machine.

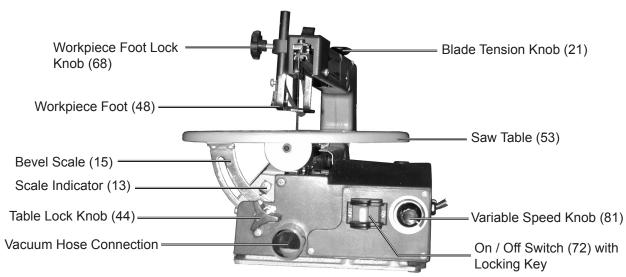
#### **Check and Align Bevel Indicator**

- 1. Loosen Table Lock Knob (44) and move the table until it is approximately perpendicular (right angle) to the blade. See photo below.
- 2. Use a small combination square to set the table at 90 degrees to the blade.
- 3. Tighten the Table Lock Knob (44).
- 4. Loosen Pan Screw (14) holding the bevel Scale Indicator (13), and adjust Indicator to point to "0" degrees. Retighten Pan Screw.

**Note:** The bevel Scale Indicator (13) is 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.

#### **OPERATING INSTRUCTIONS**

#### **Controls and Indicators**



**REV 05/05** 

#### **Turning On and Adjusting Speed**

The On/Off locking Switch (72) needs to have the Switch key inserted before the switch can be used. This feature prevents unauthorized use of the saw.

- 1. Insert plastic Switch Key into On/Off Switch (72).
- 2. To turn saw On, place finger on left side of switch and push right.
- 3. To turn saw Off, place finger on right side of switch and push left.
- 4. Turn the Variable Speed Knob (81) clockwise to increase the stokes per minute.
- 5. To lock switch in Off position, pull out the Switch key and store in a safe place.
- ⚠ WARNING: Keep hands and fingers away from the moving Saw Blade.

#### **Table Angle Adjustment**

The Saw Table (53) can be adjusted between 0 and 45 degrees as follows:

- 1. Loosen Table Lock Knob (44) and move the table until the desired angle is reached as indicated on the Bevel Scale (15). Refer to the photo at the bottom of page 9.
- 2. Tighten the Table Lock Knob (44).

#### Straight, Cross, Bevel Cuts, and Ripping

- 1. Using a pencil, mark the cut-line on the workpiece.
- 2. Slide the workpiece underneath the Workpiece Foot (48).
  - If necessary, adjust the Workpiece Foot by loosening the Workpiece Foot Lock Knob (68) and sliding the Workpiece Foot (up or down) until it lightly rests on the workpiece. Tighten the Workpiece Foot Lock Knob (68).
- 3. Set the On/Off Switch (72) to the On position. The Saw Blade starts moving.
- 4. Using both hands, carefully guide the workpiece into the blade to cut.
  - Press down on the workpiece and slowly guide it through the Saw Blade (45). Do not force the material through the Blade or the Blade could break.

#### **Inside Cuts**

- 1. Using a pencil, mark the cut-line on the workpiece.
- 2. Drill a 1/4 inch hole in the workpiece.
- 3. Follow the procedures for removing and installing the Saw Blade (45) as described on page 13.
- 4. Place the workpiece on the Saw Table (53) so that the hole is centered over the Blade access hole.
- 5. Insert the Blade through the hole in the workpiece and the Saw Table (53).
- Reinstall the Blade and properly adjust tension. Refer to page 13.
   Make sure Blade teeth are facing forward and down.

- 7. While holding the workpiece with one hand, set the On/Off Switch (72) to the On position.
- 8. Hold the workpiece with both hands while guiding and pressing down on the workpiece until the cut is complete.
- 9. Set the On/Off Switch to the Off position.
- 10. Follow the procedures for removing and installing the Saw Blade (45) as described on page 13.
- 11. With the Blade removed, the workpiece can be removed from the Saw Table.
- 12. Reinstall the Blade and set the proper tension as described on the next page.

#### **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 Drop Foot (48) without touching the Saw Blade (45).
- 3. Set the On/Off Switch (72) to the On position.
- 4. Using both hands, carefully guide the workpiece into the Saw Blade to cut.
  - 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.
- 5. 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.
- 6. Set the On/Off Switch (72) to the Off position when finished cutting.

#### Jamming of Saw Blade and Workpiece

- 1. When the Saw Blade (45) jams in the workpiece, immediately press the On/Off Switch (72) to the Off position, and unplug the Line Cord from the electrical outlet.
- 2. Wait until the Saw Blade has come to a complete stop, then remove the Saw Blade as described on page 13. The workpiece will come with it.
- 3. Place a flat bladed screwdriver in the cut and force it open. Remove the Saw Blade.
- 4. Reinstall the Saw Blade on the machine as described on page 13.

#### **INSPECTION, MAINTENANCE, AND CLEANING**

⚠ WARNING! Make sure the power On/Off Switch (72) of the Scroll Saw is in its "OFF" position and that the tool is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures. Note: All repairs should be done by a qualified technician.

- 1. **Before each use,** inspect the general condition of the Scroll Saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
- 2. Periodically recheck all nuts, bolts, and screws for tightness.
- 3. Applying a light coat of paste wax on the Saw Table allows the material being cut to glide smoothly across the Saw Table (53) surface. Buff the wax off with a clean cloth after application.
- 4. If the Power Cord (2) is worn, cut, or damaged in any way, replace it immediately.
- 6. Clean the Scroll Saw by using compressed air to blow off dirt and dust.
- 7. Store in a clean and dry location.
- 8. Over time, if the performance of the Scroll Saw diminishes, or it stops working completely, it may be necessary to replace the Carbon Brushes in the Motor (51) by removing the Carbon Brush Holder (84) and inspecting the Carbon Brushes (83). 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.

#### Lubrication

1. Lubricate the Oil Bushings (25) of Lower Rocker Arm (22) and Upper Rocker Arm (29) after the first 10 hours of use. After that, oil them every 50 hours of use, or whenever noise is heard from the Oil Bushings.

Caution: Do not attempt to oil the motor bearings or service the motor internal parts.

- 2. Carefully place the Scroll Saw on its side as shown below.
- 3. Squirt a few drips of light oil on the end of the Oil Bushings.
- 4. Leave the Scroll Saw in this position over night to allow the oil to seep in.
- 5. The next day, repeat steps 1 to 4 on the other side of the Scroll Saw.
- 6. Wipe up excess oil with a cloth.



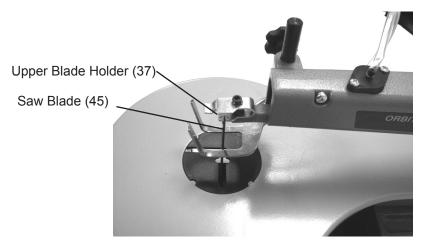
#### **Removing and Installing Blades**

- 1. Loosen the Blade Tension Knob (21) by turning counterclockwise about two full turns. Refer to the photo at the bottom of page 9.
- 2. Push down slightly on the Upper Rocker Arm (29) and remove Saw Blade (45) from Upper Blade Holder (37) by pulling forward. See photo on next page.
- 3. Remove Blade from Lower Blade Holder (40) and pull up through the access hole.

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

- 4. Attach a new (5 inch) Saw Blade through access hole and hook pins into Lower Blade Holder (40).
- Attach upper Saw Blade hook pins into the Upper Blade Holder (37).
   Make sure the pins of the Blade are in the slots of the Blade Holders.
- 6. Tighten the Blade Tension Knob (21) by turning clockwise about two full turns.

**Note:** The Blade is at the proper tension when the slack is just barely removed. Over or under tensioning of the blade causes premature breakage during operation.



The Scroll Saw can use a variety of blade widths and thicknesses, as long as they are five inches long and have the cross pin for mounting. These are used for cutting various types of materials as listed below:

Teeth / Inch	Width	Thickness	Material Cut
10	0.11"	0.02"	Medium turns on 1/4 to 1-3/4" wood, soft metals, wallboard, hard-board.
15	0.11"	0.02"	Same as above except for wood. Cuts wood from 1/8 to 1-1/2" thick.
18	0.095"	0.1"	Extra thin cuts on soft woods and other materials up to 1/4".

#### **Mounting Plain Ended Blades**

Included as an accessory are two Plain End Blade Adapters. When installed, they enable the mounting of plain end saw blades (not included). To install blades of this type:

- Using a Hex Wrench, loosen both set screws on each of the Plain End Blade Adapters.
   Turn the Insert 90° Counterclock-
- 2. Slide the gap between the two set screws over each end of the blade.
- 3. Evenly tighten all set screws. Pull on the Adapters slightly to make sure they are secure.
- 4. Remove the old blade. Pull the Insert out and rotate it 90° to the position shown at right.
- 5. Loosen the Blade Tension Knob (21) by turning counterclockwise about two full turns.
- 6. Place the Blade Adapter's bar under the end of the Lower Blade Holder (40). Make sure that the blade's teeth point the right direction.
- 7. Push down slightly on the Upper Rocker Arm (29), and place the Blade Adapter's other bar over the end of the Upper Blade Holder (37).
- 8. Tighten the Blade Tension Knob (21) by turning clockwise about two full turns.

#### **Troubleshooting**

PROBLEM	PROBABLE CAUSE	SUGGESTED REMEDY
Blades breaking	1. Wrong Blade Tension	Adjust blade tension.
	2. Over-working blade.	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 not run.	No power at outlet.	Check power source.
	2. Defective power cord or plug.	Repair or replace defective parts.
	3. Defective motor.	Have motor repaired or replace by a qualified service technician.
Excessive Vibration	Improper Base mounting.	Make sure mounting hardware is secure.
	2. Unsuitable mounting surface.	The heavier the work bench, the less vibration will occur.
	3. Loose motor mounting.	Check motor mounting hardware is secure.
Blade not in line with arm motion	Blade holders not aligned.	Loosen Hex Bolts and re-align Upper and Lower Blade Holders. Tighten Hex Bolts.

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wise to this position.

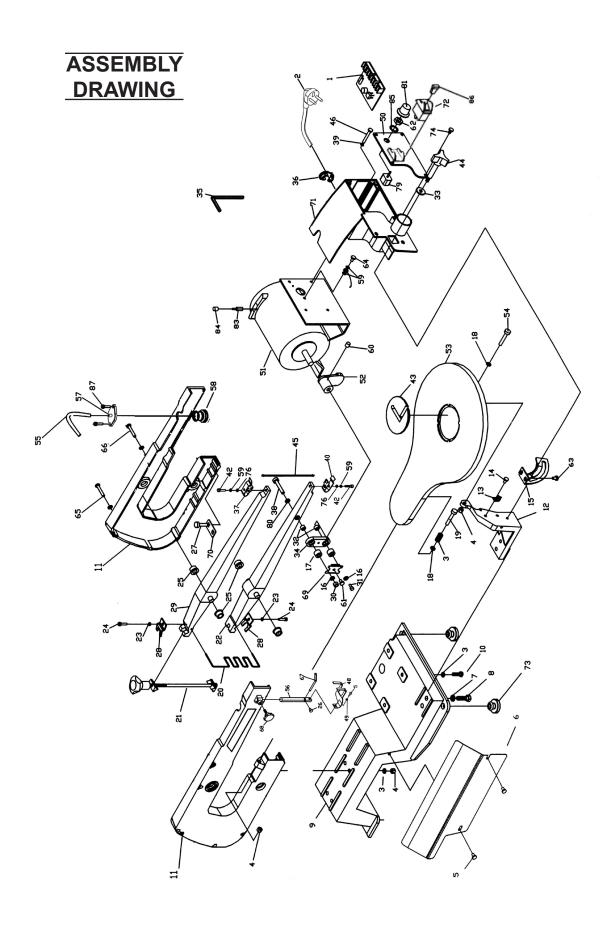
### **PARTS LIST**

	IAINI
No.	Description
1	PC Board
2	Power Cord
3	Spring Washer 6
4	Hex Nut M6
5	Cross Recessed Pan Head Screw M5x10
6	Plate Cover
7	Spring Washer 8
8	Bolt M8x25
9	Base
10	Bolt M6x16
11	Arm Housing Set
12	Support Table
13	Scale Indicator
14	Cross Recessed Pan Head Screw M6x12
15	Bevel Scale
16	Spring Washer 5
17	625ZZ Bearing
18	Washer 6
19	Hex Socket Cap Head Screw M6x40
20	Spring
21	Blade Tension Knob
22	Rocker Arm, Lower
23	Spring Washer 4
24	Hex Socket Cap Head Screw M4x10
25	Oil Bushing
26	Cross Recessed Pan Head Screw M5x6
27	Cup Head Square Neck Bolt M6x25
28	Retainer
29	Rocker Arm, Upper
30	Hex Nut M5
31	Hex Socket Cap Head Screw M5x20
32	Spacer
33	Large Washer 6
34	Link
35	4mm Hex Key
36	Strain Relief
37	Upper Blade Holder
38	Hex Socket Cap Head Screw M5x25
39	Washer 4
40	Lower Blade Holder
41	Pan Head Tapping Screw ST4.2x10
42	Hex Socket Cap Head Screw M4x16
43	Throat Plate

No.	Description
44	Table Lock Knob
45	15 TPI Saw Blade
46	Cross Recessed Pan Head Screw M4x16
47	Cross Recessed Pan Head Screw M4x10
48	Workpiece Foot
49	Cross Recessed Pan Head Screw M5x25
50	Switch Plate
51	Motor
52	Eccentric
53	Saw Table
54	Hex Socket Cap Head Screw M6x35
55	Plastic Tubing
56	Adjustment Level
57	Bellows Lock
58	Bellows
59	Tooth Washer 4
60	Hex Socket Set Screw M8x8
61	Pan Head Tapping Screw ST4.2x8
62	Hex Nut M10
63	Cross Recessed Pan Head Screw M5x8
64	Cross Recessed Pan Head Screw M4x6
65	Cross Recessed Pan Head Screw M5x35
66	Cross Recessed Pan Head Screw M5x30
67	Saw Dust Blower
68	Workpiece Foot Lock Knob
69	Bearing Retainer
70	Bolt Retainer
71	Switch Box
72	On/Off Switch
73	Rubber Foot
74	Pan Head Tapping Screw ST4.2x13
75	Plate Cover
76	Spacer
79	Potentiometer
80	Washer 5
81	Variable Speed Knob
82	Cross Recessed Pan Head Screw M5x10
83	Carbon Brush
84	Carbon Brush Cover
	Lock washer 10
86	Switch key

#### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR 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.



**NOTE**: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

#### LIMITED 1 YEAR / 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 for a period of ninety days from date of purchase that the engine/motor, the belts (if so equipped), and the blades (if so equipped) are free of defects in materials and workmanship. Harbor Freight Tools also warrants to the original purchaser, for a period of one year from date of purchase, that all other parts and components of the product are free from defects in materials and workmanship (90 days if used by a professional contractor or if used as rental equipment). This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, 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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