DEWALT®

Instruction Manual
Manual de instrucciones
Guide d'tilisation

DXVS4502

18 IN. (457 MM) VARIABLE SPEED SCROLL SAW

SIERRA CALADORA DE VELOCIDAD VARIABLE, DE 457 MM (18 PULG.)

457 MM (18 PO) SCIE VARIABLE DEROULEMENT RAPIDE

www.DEWALT.com

If you have questions or comments, contact us.
Si tiene dudas o comentarios, contáctenos.
Pour toute question ou tout commentaire, nous contacter.
833-312-4043

Definitions: Safety Alert Symbols and Words

This instruction manual uses the following safety alert symbols and words to alert you to hazardous situations and your risk of personal injury or property damage.

DANGER: *Indicates an imminently hazardous situation which, if not avoided,* ***will*** *result in* ***death or serious injury****.*

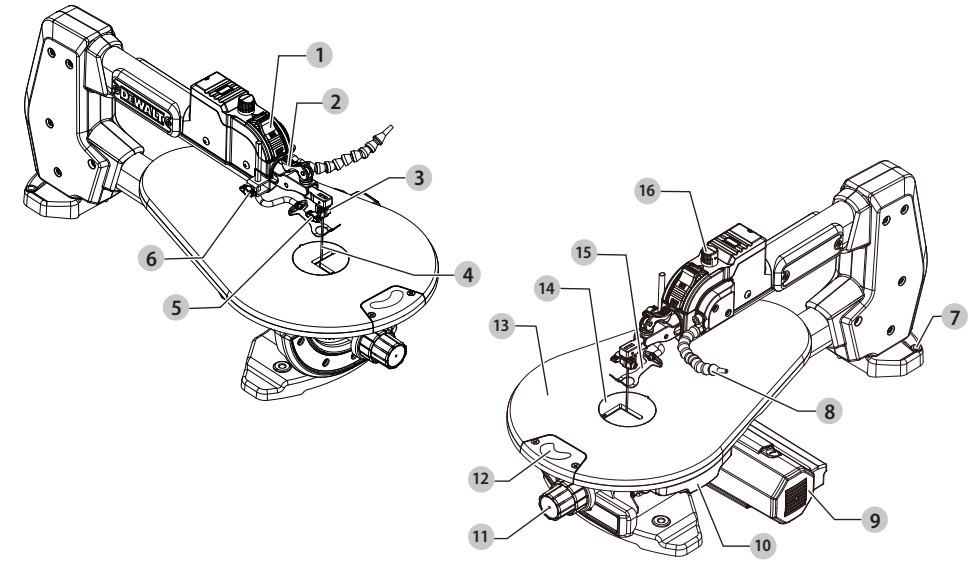
WARNING: *Indicates a potentially hazardous situation which, if not avoided,* ***could*** *result in* ***death or serious injury****.*

CAUTION: *Indicates a potentially hazardous situation which, if not avoided,* ***may*** *result in* ***minor or moderate injury****.*

(Used without word) Indicates a safety related message.

NOTICE: *Indicates a practice* ***not related to personal injury*** *which, if not avoided,* ***may*** *result in* ***property damage****.*

Fig. A



COMPONENTS

1. On/Off switch
2. Blade tension lever
3. Upper blade holder
4. 5 in. plain-end blade
5. Upper blade holder lock knob
6. Blade guard foot lock knob
7. Mounting hole
8. Sawdust blower
9. Motor
10. Blade storage drawer
11. Table lock knob
12. Table top bevel scale
13. Worktable
14. Table insert
15. Blade guard foot
16. Variable speed control knob

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.*

WARNING: *Never modify the product or any part of it. Damage or personal injury could result.*

WARNING: *To reduce the risk of injury, read the instruction manual.*

If you have any questions or comments about this product, call toll free at: 833-312-4043.

18 IN. (457 MM) VARIABLE SPEED SCROLL SAW
DXVS4502

GENERAL POWER TOOL SAFETY WARNINGS

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

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

1) Work Area Safety

a) ***Keep work area clean and well lit.*** *Cluttered or dark areas invite accidents.*

b) ***Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.*** *Power tools create sparks which may ignite the dust or fumes.*

c) ***Keep children and bystanders away while operating a power tool.*** *Distractions can cause you to lose control.*

2) Electrical Safety

a) ***Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.*** *Unmodified plugs and matching outlets will reduce risk of electric shock.*

b) ***Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.*** *There is an increased risk of electric shock if your body is earthed or grounded.*

c) ***Do not expose power tools to rain or wet conditions.*** *Water entering a power tool will increase the risk of electric shock.*

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

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

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

3) Personal Safety

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

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

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

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

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

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

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

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

4) Power Tool Use and Care

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

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

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

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

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

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

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

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

5) Service

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

SAFETY INSTRUCTIONS FOR SCROLL SAW

a) ***Read and understand*** *all safety instructions and operating procedures throughout the manual. Retain this manual as it contains important information regarding safe operation of this tool.*

b) ***Do not operate*** *the Scroll Saw until it is completely assembled and installed according to the instructions.*

c) ***Should*** *any part of Scroll Saw be missing, damaged, or fail in any way, or any electrical component fail to perform properly, shut off the switch and remove the plug from the power supply outlet. Replace missing, damaged, or failed parts before resuming operation.*

d) ***If you are not*** *thoroughly familiar with the operation of a Scroll Saw, obtain advice from your supervisor, instructor or other qualified person.*

e) ***Serious injury*** *could occur if the tool tips over or you accidentally hit the cutting tool. Do not store anything above or near the tool.*

f) ***Avoid injury*** *from unexpected saw movement. Place the saw on a firm level surface where the saw does not rock and bolt or clamp the saw to its support.*

g) ***Your scroll saw must be securely fastened*** *to a stand or workbench. If there is any tendency for the stand or workbench to move during operation, the stand or workbench MUST be fastened to the floor.*

h) ***This scroll saw*** *is intended for indoor use only.*

i) ***Tension blade*** *PROPERLY before starting the saw. Recheck and adjust tension as needed.*

j) ***Blade teeth must point*** *downward toward the table.*

k) ***Table must be cleared*** *of all debris before operating saw. Do not perform lay out, set up or assemble work on the table when the saw is in operation.*

l) ***To prevent injuries,*** *avoid awkward hand or finger positions, where a sudden slip could cause a hand to move into the blade when operating the saw.*

m) ***Hold workpiece firmly*** *against the table top.*

n) ***Never cut material*** *that is too small to be held safely.*

o) ***Do not use*** *dull or bent blades.*

p) ***Turn the saw off and unplug the cord*** *if the blade binds in the saw kerf while being backed out of the workpiece, usually caused by sawdust clogging the kerf. If this happens, turn off the scroll saw and unplug the power cord. Wedge open the kerf and back the blade out of the workpiece.*

q) ***Do not*** *feed the material too fast while cutting. Only feed the workpiece at the rate the saw will cut.*

r) ***Turn the power off,*** *make sure the scroll saw comes to a complete stop before installing or removing an accessory, and before leaving the work area.*

s) ***Do not start*** *the saw with workpiece pressing against the blade. Slowly feed the workpiece into the moving blade.*

t) ***When cutting*** *a large workpiece, MAKE SURE the material is supported at table height.*

u) ***Exercise caution*** *when cutting workpieces that are round or irregularly shaped, workpieces can pinch the blade.*

v) ***Always*** *release blade tension before loosening the blade holder screw.*

w) ***Make certain*** *table tilting lock is tightened before starting the machine.*

x) ***Never reach*** *under the scroll saw table when motor is running.*

y) ***Check for damaged parts*** *before each use. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting or any other conditions that may affect operation. Parts that are damaged should be properly repaired or replaced before using the tool.*

z) ***Think safety***.

PROPOSITION 65 WARNING

WARNING: *Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to: www.P65Warnings.ca.gov/wood*

Some examples of these chemicals are:

- *Lead from lead-based paints,*
- *Crystalline silica from bricks and cement and other masonry products, and*
- *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.

Handling the power cord on this product may expose you to chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

For more information go to: www.P65Warnings.ca.gov

READ INSTRUCTION MANUAL: *To reduce the risk of injury, user and all bystanders must read instruction manual before using this product.*

- ***Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities. Wear protective clothing and wash exposed areas with soap and water.*** *Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.*

WARNING: *Use of this tool can generate and/or disperse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.*

WARNING: Always wear proper personal hearing protection that conforms to ANSI S12.6 (S3.19) during use. *Under some conditions and duration of use, noise from this product may contribute to hearing loss.*

CAUTION: *When not in use, place tool on its side on a stable surface where it will not cause a tripping or falling hazard. Some tools will stand upright but may be easily knocked over.*

- ***Air vents often cover moving parts and should be avoided.*** *Loose clothes, jewelry or long hair can be caught in moving parts.*

ELECTRICAL SPECIFICATIONS AND SAFETY

Power supply and motor specifications

WARNING: *To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection. Use a separate electrical circuit for your tool. Your saw is wired at the factory for 120 V operation. Connect to a 120 V, minimum 1.6 Amp circuit and use a 1.6 Amp time delay fuse or circuit breaker. To avoid shock or fire, if power cord is worn, cut, or damaged in any way, have it replaced immediately.*

Grounding instructions

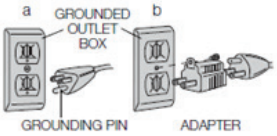
WARNING: *This tool must be grounded while in use to protect the operator from electrical shock.*

In the event of a malfunction or breakdown, *grounding provides a path of least resistance for electric currents to reduce the risk of electric shock. The scroll saw must be connected to a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.*

DANGER: *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 cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or service person if the grounding instructions are not completely understood, or if in doubt as to whether the scroll saw is properly grounded. Do not modify the plug connected to the scroll saw – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.*

FOR GROUNDED, CORD-CONNECTED SCROLL SAW RATED LESS THAN 15A AND INTENDED FOR USE ON A NOMINAL 120V SUPPLY CIRCUIT

The scroll saw is for use on a nominal 120V circuit, and should be connected to a grounding outlet that looks like that illustrated in sketch a. A temporary adaptor, which looks like the adaptor illustrated in sketch b, may be used to connect this plug to a 2-pole receptacle as shown in sketch b if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear, lug, and the like, extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by the metal screw.



NOTE: *IN CANADA, THE USE OF A TEMPORARY ADAPTOR IS NOT PERMITTED BY THE CANADIAN ELECTRICAL CODE. Ensure that the scroll saw is connected to an outlet having the same configuration as the plug.*

Use of Extension Cords with Scroll Saw

Only use a grounded extension cord that is rated at least 1.6 amps and has a third-wire ground. When a long extension cord is used to connect the scroll saw, a voltage drop occurs. The longer the cord, the greater the voltage drop. This results in less voltage being supplied to the scroll saw and increases the amount of current (amp) draw or reduces performance. A heavier cord with a larger wire size will reduce the voltage drop. Be sure to choose a cord that will supply enough voltage to operate the scroll saw. The table below indicates appropriate gauge for extension cords.

Minimum Gauge for Extension Cord Sets						
Ampere Rating		Volts	Total Length of Cord in Feet (meters)			
		120V	25 (7.6)	50 (15.2)	100 (30.5)	150 (45.7)
		240V	50 (15.2)	100 (30.5)	200 (61.0)	300 (91.4)
More Than	Not More Than	AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12

WARNING: *Keep electrical cords in good condition. Do not use worn, bare, or frayed cords because they can cause electrical shock.*

WARNING: *Operating equipment at low voltage can cause it to overheat. Using an excessively long extension cord can cause the cord to overheat.*

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

V ..... volts
Hz ..... hertz
min ..... minutes
⎓ or DC..... direct current
Ⓘ ..... Class I Construction (grounded)
. . ./min..... per minute
BPM..... beats per minute
IPM ..... impacts per minute
RPM..... revolutions per minute
sfpm ..... surface feet per minute
SPM ..... strokes per minute
OPM..... oscillations per minute
A ..... amperes
W..... watts
~ or AC..... alternating current
≂ or AC/DC.... alternating or direct current
⧈ ..... Class II Construction (double insulated)
n_0 ..... no load speed
n ..... rated speed
⏚ ..... earthing terminal
⚠ ..... safety alert symbol
..... visible radiation
..... avoid staring at light
..... wear respiratory protection
..... wear eye protection
..... wear hearing protection
..... read all documentation
../min or ..min-1. Revolutions or Reciprocations per minute

SAVE THESE INSTRUCTIONS FOR FUTURE USE

Motor

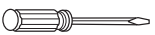
Be sure your power supply agrees with the nameplate marking. Voltage decrease of more than 10% will cause loss of power and overheating. These tools are factory tested; if this tool does not operate, check power supply.

TOOLS NEEDED FOR ASSEMBLY

Supplied

3 mm hex wrench

Not supplied



Slotted Screwdriver

#2 Phillips Screwdriver

Adjustable wrench

13 mm wrench

CARTON CONTENTS

Unpacking And Checking Contents

Carefully unpack the scroll saw and all its parts, and compare against the list below and the illustration. With the help of an assistant, place the saw on a secure surface and examine it carefully.

WARNING: *To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a source of power during unpacking and assembly. The cord must remain unplugged whenever you are adjusting/assembling the saw.*

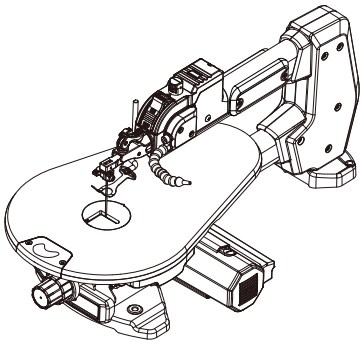
WARNING: *The saw is heavy and should be lifted with care. If needed, get the assistance of someone to lift and move the saw.*

WARNING: *If any part is missing or damaged, do not attempt to assemble the scroll saw, or plug in the power cord until the missing or damaged part is correctly replaced.*

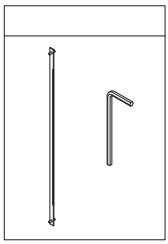
Table of Loose Parts

ITEM	DESCRIPTION	Q'TY
A.	Scroll saw	1
B.	Blade bag	
	5 in. pin-end blade	1
	3 mm hex key	1
C.	Dust Collector Joint	1
D.	Instruction manual	1

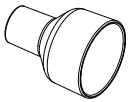
UNPACKING YOUR SCROLL SAW



A



B



C

D

WARNING: Many illustrations in this manual show only portions of the Scroll Saw. This is intentional so that points being made in the illustrations can be highlighted. Never operate the saw without all guards securely in place and in good operating condition.

ASSEMBLY AND ADJUSTMENTS

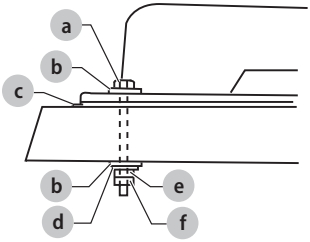
Estimated Assembly Time: 25 - 40 minutes

WARNING: For your safety, never connect plug to power source receptacle until all assembly and adjustment steps are complete, and you have read and understood the safety instructions.

Mounting The Scroll Saw To Work Surface (Fig. B)

1. If mounting the scroll saw to a workbench, a solid wood bench is preferred over a plywood board to reduce noise and vibration.
2. The hardware to mount this saw is NOT supplied with the saw. The hardware as shown in Fig. B should be used:

Fig. B

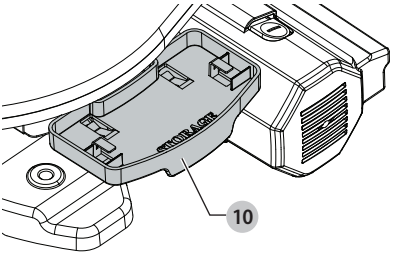


- **a** Hex bolts; length as required
- **b** Flat washers
- **c** Foam pad or carpet (optional)
- **d** Lock washer
- **e** Hex nuts
- **f** Jam nuts

Blade Storage (Fig. C)

Blade storage is located on the right side of the scroll saw body. Pull out the blade storage drawer **10** to open. The compartment can conveniently store your hex key and both pin-end and plain-end blades.

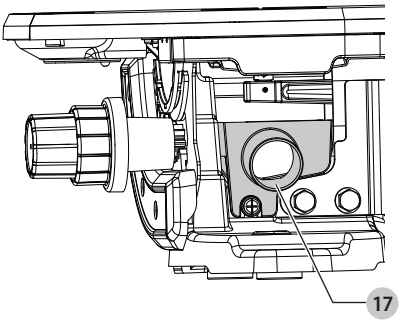
Fig. C



Sawdust Collection Port (Fig. D)

This scroll saw will accept a 1-1/4 in. diameter hose or vacuum accessory (not provided) to be connected to the port **17** on the right side of base.

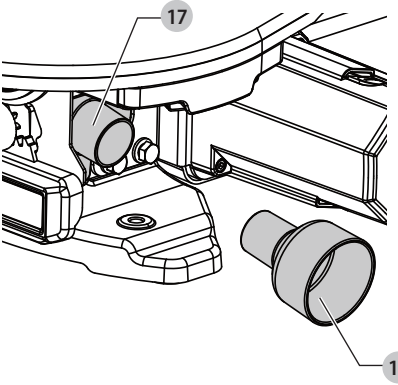
Fig. D



Installing The Dust Collector Joint (Fig. E)

Insert the dust collector joint **18** into the dust port **17** on the right side of base.

Fig. E



Blade Removal And Installation

Plain-end Blade Removal And Installation

This scroll saw accepts 5 in. (127 mm) length plain-end or pin-end blades to cut a wide variety of materials.
Plain-end type blades are recommended whenever fine, accurate and intricate work is being performed on 3/4 in. (19 mm) or thinner material. It will take slightly longer to install the blade and adjust blade tension, but you will also be able to use finer blades for cutting a thinner kerf.

WARNING: *To avoid injury from accidental starting, always turn the switch OFF (O) and remove power cord plug from power source before removing or replacing the blade.*

Plain-end blade removal (Fig. F, G, H)

1. Remove the table insert **14** by pushing it up from under the worktable. (Fig. F)
   NOTE: Be careful not to make contact with the blade.
2. To remove the blade, loosen the blade tension by lifting the blade tension lever **2**. If needed, turn the blade tension lever counterclockwise to reduce the tension further.
3. Loosen the upper blade holder **3** by turning the upper blade holder lock knob **5** counterclockwise. (Fig. G)
   NOTE: The hex set screw **19** on the right side is used for fine adjustments and is only adjusted if the blade is not perpendicular to the table.
4. Tilt the worktable to 45° left and tighten the table lock knob **11**. Loosen the lower blade holder lock knob **20** on the right side of the lower blade holder **21** under the table by turning it counterclockwise. (Fig. G & H)
5. Push down the upper arm **22**, and remove the blade **4** from the upper and lower blade holders by pulling forward.

Fig. F

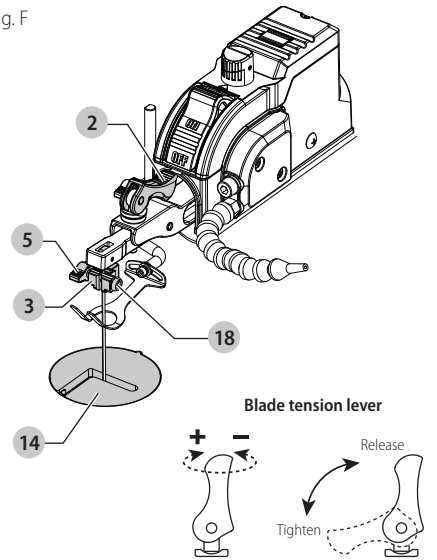


Fig. G

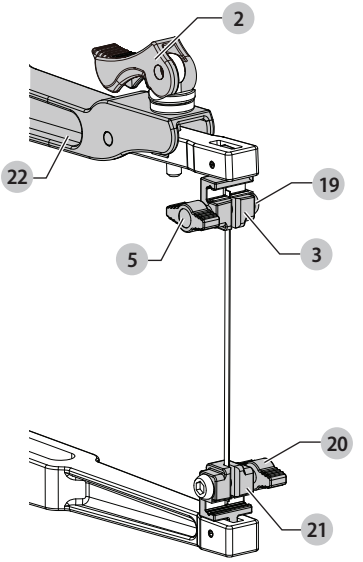
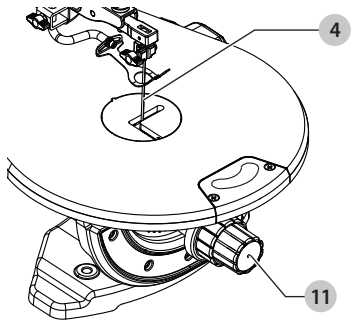


Fig. H



Plain-end blade installation (Fig. F, H, I)

CAUTION: In order to avoid uncontrollable lifting of the workpiece, the teeth of the blade should ALWAYS point downward.

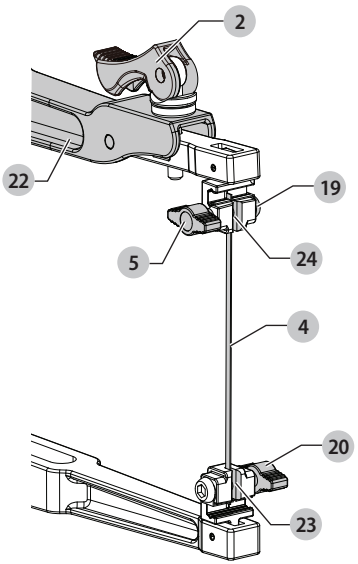
NOTE: The worktable should still be at 45 degrees left and the table insert is removed from the worktable.

1. Insert the new blade **4** with teeth pointing down into the lower blade holder slot **23**, then tighten the lower blade holder lock knob **20**. (Fig. I)
2. Tilt the table back to the 0° bevel setting and lock the table lock knob **11**. (Fig. H)
3. Insert the other end of the blade into the upper blade holder slot **24**, then tighten the upper blade holder lock knob **5**. (Fig. I)
   NOTE:
   - Apply slight downward pressure against the upper arm **22** when installing the blade into the upper blade holder. (Fig. I)
   - If required, clamp plain-end blades more tightly by using a 3 mm hex key through the hex set screw **19**. (Fig. I)
4. Tighten the blade tension by pressing down the blade tension lever **2**. If tension is too tight, turn the blade tension lever **2** counterclockwise. If tension is too loose, turn the blade tension lever clockwise. (Fig. I)
5. Replace the table insert **14**, making sure it is not above the worktable surface. (Fig. F)

CAUTION: Overtightening blade will cause blade breakage.

NOTE: The blade tension lever must always be down to make tension adjustments. Release the blade tension lever only during blade changing operations. If the blade is tightened too tight, the lever will be difficult to lower and could result in damage to the blade holder or arm assembly. (Fig. I)

Fig. I



Pin-end Blade Removal And Installation

WARNING: *To prevent personal injury, always turn the saw OFF and disconnect the plug from the power outlet before changing blades or making adjustments.*

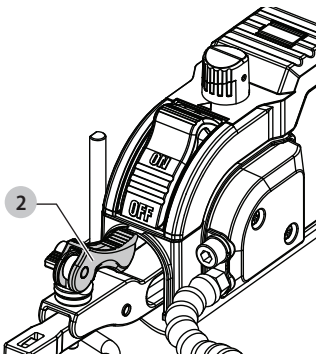
Pin-end type blades are often thicker than plain-end blades and offer more stability and faster assembly. These blades are used whenever faster cutting on a variety of materials and 3/4 in. (19 mm) thickness or greater are required. Use whenever less precision or thicker kerf cutting is acceptable.

NOTE: When installing pin-end blades, the hex set screws located on the upper and lower blade holders should not be over or under tightened. The slot must be slightly wider than the thickness of the blade. After the blade is installed, the blade tension mechanism will keep the pin-end in place.

Pin-end blade removal (Fig. F, J, K)

1. Remove the table insert **14** by pushing it up from under the worktable. (Fig. F)
   NOTE: Be careful not to make contact with the blade.
2. To remove the blade, loosen the blade tension by lifting the blade tension lever **2**. (Fig. J)
3. Loosen the upper blade holder **3** by turning the upper blade holder lock knob **5** counterclockwise. (Fig. K)
4. Tilt the table to 45° left and tighten the table lock knob **11**. Loosen the lower blade holder lock knob **20** on the right side of the lower blade holder **21** under the table by turning it counterclockwise. (Fig. H & K)
5. Remove the blade **4** from the upper **3** and lower **21** blade holder by pulling down the arm, then pulling forward to release the blade **4**. (Fig. K)
   NOTE: Apply slight downward pressure on the upper arm when removing blade from upper blade holder.

Fig. J



Blade tension lever

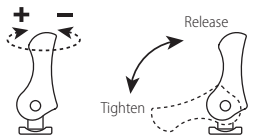


Fig. K

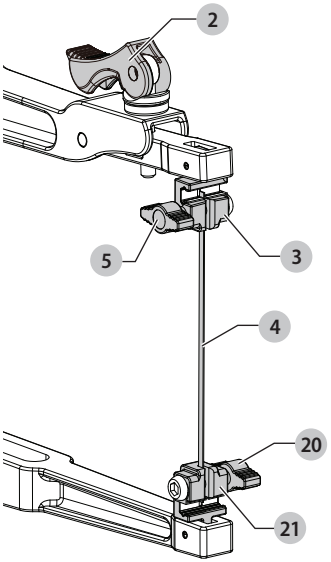


Fig. L

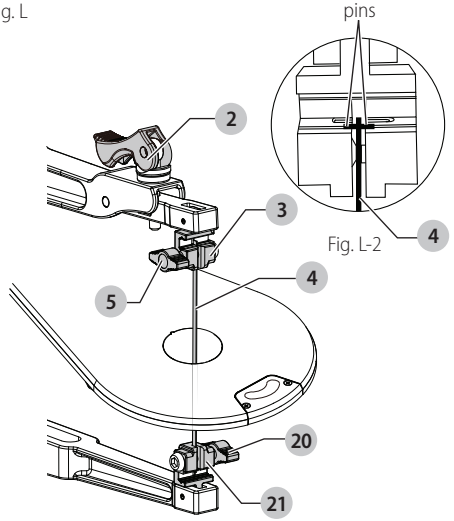


Fig. L-2

Pin-end blade installation (Fig. F, H, L)

NOTE: Do not tighten the blade holder lock knobs when using pin-end blades.

WARNING: *In order to avoid uncontrollable lifting of the workpiece, the teeth of blade should always point downward.*

1. To install a new 5 in. pin-end blade, first insert the blade into the lower blade holder **21**, making sure the pins are properly located in the slots (see Fig. L-2). Then place the blade into the slot in upper blade holder **3**.
2. Tighten the upper **5** and lower **20** blade holder lock knob.
3. To tension the blade **4**, lower the blade tension lever **2**. Check the tension on the blade. If tension is too tight, turn the blade tension lever **2** counterclockwise. If tension is too loose, turn the blade tension lever clockwise.
   NOTE: If the blade is over tightened, the lever will be difficult to lower and could result in damage to the blade holder or arm assembly.
4. Tilt the table back to the 0° bevel setting and lock the table lock knob **11**. (Fig. H)
5. Replace the table insert **14**, making sure it is not above the worktable surface. (Fig. F)

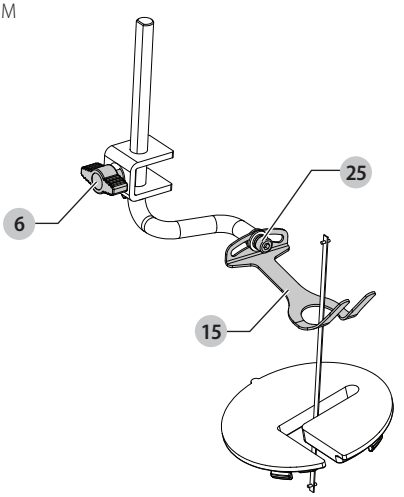
Blade Guard Foot Adjustment (Fig. M)

NOTE: User must keep constant downward pressure on workpiece when cutting. The blade guard foot is not designed to hold down the workpiece, but is rather to help prevent the workpiece from lifting up excessively.

When cutting at angles, the blade guard foot **15** should be adjusted so it is parallel to the table and rests flat above the workpiece.

1. To adjust, loosen the blade guard screw **25** with the 3 mm hex key, adjust the blade guard foot **15** parallel to table, and tighten the screw **25**.
2. Loosen the blade guard foot lock knob **6** to raise or lower the foot until it rests slightly above the workpiece. Tighten blade guard foot lock knob **6**.

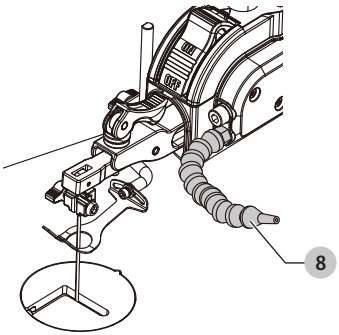
Fig. M



Sawdust Blower (Fig. N)

The sawdust blower **8** should be positioned to point to the blade and workpiece to blow sawdust out of the line-of-sight when cutting. It is not designed to blow all of the sawdust off the table.

Fig. N



Blade Selection (Fig. O)

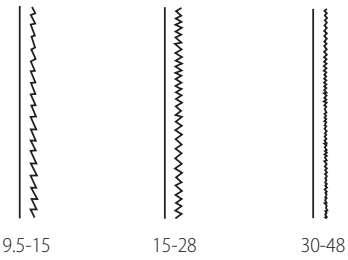
WARNING: *To avoid injury from accidental starting, always turn the switch OFF and unplug the scroll saw before moving, replacing the blade or making adjustments.*

This scroll saw accepts 5 in. (127 mm) length blades with a wide variety of blade thickness and widths. The type of material and cutting operations (size of radius or curve) will determine the number of teeth per inch. As a rule, always select the narrowest blades for intricate curve cutting and the widest blades for straight and large curve cutting operations.

The following table represents suggestions for various materials. When purchasing blades, refer to the back of the package for the best use of blades and speeds on various materials.

Use this table as an example, but practice and your own personal preference will determine the best selection method.

Fig. O



TEETH/ INCH TPI	BLADE WIDTH INCH	BLADE THICKNESS INCH	BLADE/ SPM	MATERIAL CUT
9.5-15	0.110 (2.8 mm)	0.018 (0.46 mm)	400-1200	Medium turns on 1/4 in. (6.35 mm) to 1-3/4 in. (44.45 mm) wood, soft metal, hardwood
15-28	.055-.110 (1.4-2.8 mm)	.010-.018 (0.25-0.46 mm)	800-1800	Small turns on 1/8 in. (3.18 mm) to 1-1/2 in. (38.1 mm) wood, soft metal, hardwood
30-48	.024-.041 (0.6-1.0 mm)	.012-.019 (0.3-0.48 mm)	Varies	Non-ferrous metals hardwoods using very slow speeds

NOTE: When using blades, sometimes speeds must change to compensate for smaller curves, radii or smaller diameters. Thinner blades will have more possibilities for blade deflection when cutting angles which are not perpendicular to the table. Read **RECOMMENDATION FOR CUTTING** for more suggestions.

NOTE: The blade must be installed with the teeth pointing downward, to prevent the workpiece from being pulled upward by the saw blade action.

OPERATION

Variable Speed Control And ON/OFF Switch

WARNING: *For your own safety, always push the switch "OFF" when the scroll saw is not in use. Also, in the case of power failure (all of your lights go out) push the knob "OFF". Remove the plug from the power source outlet to avoid accidental starting.*

ON/OFF Switch (Fig. P)

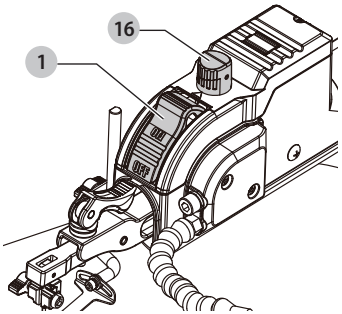
1. To turn power ON, press on/off switch **1** to "ON" position.
2. To turn power OFF, press on/off switch **1** to "OFF" position.

Variable Speed Control Knob (Fig. P)

The variable speed control allows greater versatility to cut a variety of materials such as wood, plastics, non-ferrous metals, etc. Depending on the hardness and thickness of material, the speed should be reduced to allow the blade teeth to remove cut material from the kerf.

1. Your saw is equipped with a variable speed control knob **16**. The blade stroke rate may be adjusted by simply rotating the variable speed control knob **16**.
2. Turn the speed control knob clockwise to increase up to 1,500 strokes per minute (SPM). Turn the speed control knob counterclockwise to reduce down to 500 strokes per minute (SPM).

Fig. P



Recommendations For Cutting

1. When feeding the workpiece into the blade do not force the leading edge of the workpiece into the blade because the it will deflect the blade, reduce the accuracy of cutting and possibly break the blade. Allow the saw to cut material by guiding the workpiece into the blade as it cuts.
2. The blade teeth cut material ONLY on the down stroke.
3. You must guide the wood into the blade slowly because the teeth of the blade are very small and they can only remove wood when they are on the down stroke.
4. There is a learning curve for each person who wants to use this saw. During that period of time it is expected that some blades will break until you learn how to use the saw and receive the greatest benefit from the blades.
5. Best results are achieved when cutting wood less than one inch (25.4 mm) thick.
6. When cutting wood thicker than one inch (25.4 mm), the user must guide the wood very slowly into the blade and take extra care not to bend or twist the blade while cutting in order to maximize blade life.
7. When teeth of scroll saw blade worn out, must replace the new blade. Check the blade frequently for best cutting results. Scroll saw blades generally stay sharp for 1/2 to 2 hours of cutting.
8. To get accurate cuts, be prepared to compensate for the blade's tendency to follow the wood grain as you are cutting.
9. This scroll saw is intended to cut wood or wood products.
10. When choosing a blade to use with your scroll saw, consider very fine, narrow blades to scroll cut in thin wood in 1/4 in. (6.4 mm) thick or less. Use wider blades for thicker materials but this will reduce the ability to cut tight curves.
11. This saw uses 5 in. (127 mm) long pin or plain end type blades.
12. Blades wear faster when cutting plywood or particle board which is very abrasive. Angle cutting in hardwoods reduces blade tooth set faster due to the blade deflection.

Freehand Cutting (Fig. Q)

1. Lay out desired design, or secure design to the workpiece **26**.
2. Raise the blade guard foot **15** by loosening the blade guard foot lock knob **6**.
3. Position the workpiece against the blade and place the blade guard foot slightly above the top surface of the workpiece.
4. Secure the blade guard foot **15** by tightening the blade guard foot lock knob **6**.
5. Remove the workpiece from the blade before turning the scroll saw ON. Set the desired speed by turning the speed control knob **16** clockwise or counterclockwise.

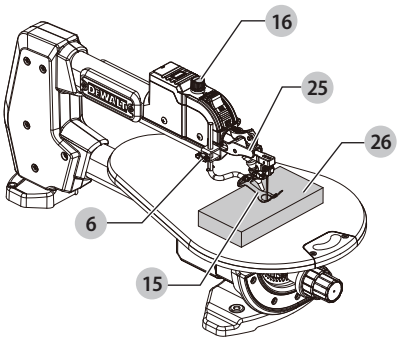
CAUTION: In order to avoid uncontrollable lifting of the workpiece and to reduce blade breakage, do not turn saw ON while the workpiece is against the blade.

6. When turning the scroll saw ON, position the workpiece against scrap wood prior to touching the leading edge of the workpiece against the blade.
   NOTE: For your own safety, use the scrap wood to perform the cutting especially for the small workpiece.
7. Slowly feed the workpiece into the blade by guiding and pressing the workpiece down against the table.

CAUTION: Do not force the leading edge of the workpiece into the blade, it may deflect the blade, reduce accuracy of cutting, and possibly break the blade.

8. When the cut is complete, move the trailing pieces of the workpiece beyond the blade guard foot. Turn the scroll saw OFF.

Fig. Q



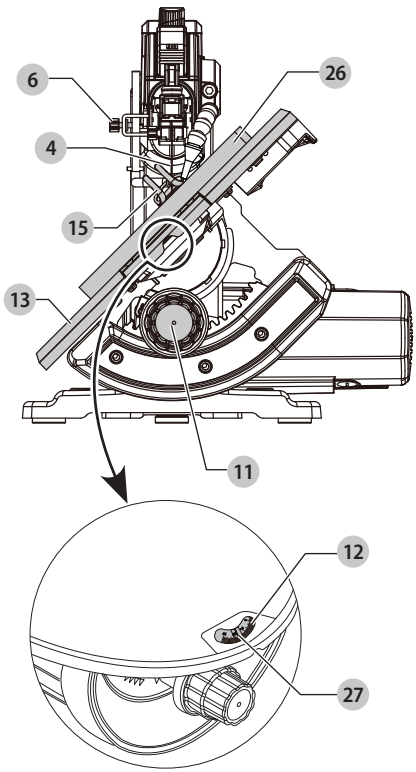
Angle Cutting (Fig. Q, R, S)

WARNING: *To avoid injury, always keep your hands off the underneath of the table during operating.*

Left Bevel Cutting (maximum 45 degrees) (Fig. Q, R)

1. Lay out or secure design to workpiece **26**. (Fig. R)
2. Move the blade guard foot **15** to the highest position by loosening the blade guard foot lock knob **6** and retighten.
3. Tilt the table **13** to the desired angle by loosening the table lock knob **11** and move the table to the proper angle, using the degree scale **12** and the pointer **27**.
4. Tighten the table lock knob **11**.
5. Loosen the blade guard screw **25**, and tilt the blade guard to the same angle as the table **13**. Retighten the blade guard screw. (Fig. Q & R)
6. Position the workpiece on the left and right side of the blade **4**. Lower the blade guard foot slightly above the surface of the workpiece by loosening the blade guard foot lock knob **6**. (Fig. R)
7. Follow steps 4-8 under **FREEHAND CUTTING OPERATION**.

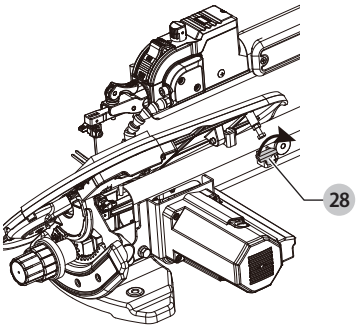
Fig. R



Right Bevel Cutting (maximum 15 degrees) (Fig. R, S)

1. Lay out or secure design to workpiece **26**. (Fig. R)
2. Move the blade guard foot **15** to the highest position by loosening the blade guard foot lock knob **6** and retighten.
3. Tilt the table **13** to the left by loosening the table lock knob **11**, and lifting the anchor plate **28** to the rear of the saw. Tilt the table to the right, it will stop at the angle of 15°. (Fig. R & S)
4. Tighten the table lock knob **11**. (Fig. R)
5. Follow steps 5-7 under **Left Bevel Cutting**.

Fig. S



Rip Or Straight Line Cutting (Fig. T)

Tools Needed (Not Included)

QUANTITY	DESCRIPTION
2	Small C-clamps
1	Ruler or measuring tape
1	12-inch (304.8 mm) -straight scrap of wood (Thickness to match workpiece)
1	A piece of wood, metal, plastic etc. with a straight edge

1. Raise the blade guard foot **15** by loosening the blade guard foot lock knob **6** on the left side of the upper arm. Measure from the tip of the blade **4** to the desired distance. Position the straight edge **29** parallel to the blade at that distance.
2. Clamp the straight edge **29** to the table **13**.
3. Recheck your measurements, using the workpiece to be cut, and make sure the scrap wood **30** is secure.
4. Position the workpiece against the blade and place the blade guard foot **15** slightly above the top surface of the workpiece.
5. Secure the blade guard foot **15** in place by tightening the blade guard foot lock knob **6**.
6. Remove the workpiece from the blade before turning the scroll saw ON. Set the desired speed by turning the speed control knob clockwise or counterclockwise.

CAUTION: In order to avoid uncontrollable lifting of the workpiece and reduce blade breakage, do not turn saw ON while the workpiece is against the blade.

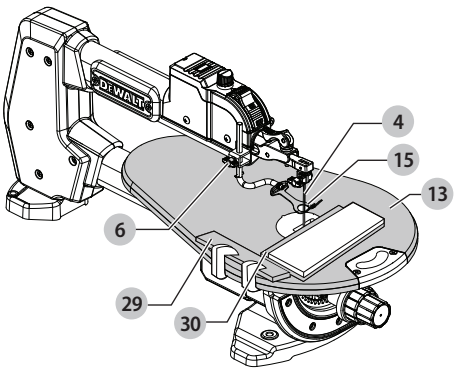
7. Position the workpiece against the straight edge **29** prior to touching the leading edge of the workpiece against the blade **4**.
8. Slowly feed the workpiece into the blade, guiding the workpiece against the straight edge **29** and press the workpiece down against the table while cutting.

CAUTION: Do not force the leading edge of the workpiece into the blade. The blade will deflect, reducing accuracy of cut and may break.

9. When the cut is complete, move the trailing edge of the workpiece beyond the blade guard foot **15**. Turn the scroll saw OFF.

NOTE: Use push stick when cutting a narrow workpiece.

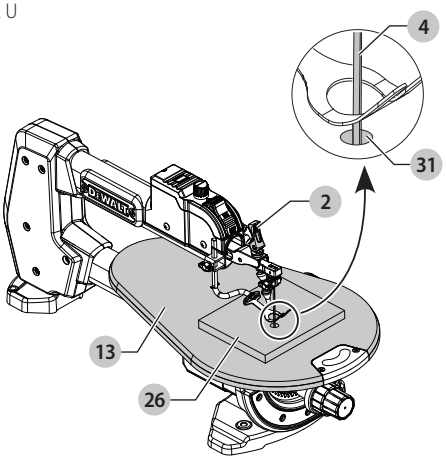
Fig. T



Interior Cutting (Fig. U)

1. Lay out the design on the workpiece **26**. Drill a 1/4 in. (6.4 mm) hole in the workpiece.
2. Lift the blade tension lever **2** and remove the blade **4**. Refer to **BLADE REMOVAL AND INSTALLATION**.
3. Place the workpiece on the table with the workpiece hole **31** over the access hole in the table **13**.
4. Install the blade **4** through the hole in the workpiece and press the blade tension lever **2**.
5. Follow the process 3-8 under the section of **FREEHAND CUTTING**.
6. When finish the cutting, turn the scroll saw OFF, remove the blade from the blade holders and remove the workpiece from the table.

Fig. U



MAINTENANCE

WARNING: For your safety, turn the switch OFF and remove the power cord from the source outlet before maintaining or lubricating your scroll saw.

General Maintenance

WARNING: *Frequently blow out dust and grit that accumulates in the motor housing using compressed air.*

ALWAYS use safety glasses. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:

- *ANSI Z87.1 eye protection (CAN/CSA Z94.3),*
- *ANSI S12.6 (S3.19) hearing protection,*
- *NIOSH/OSHA/MSHA respiratory protection.*

An occasional coat of paste wax on the work table will allow the wood being cut to glide smoothly across the work surface.

WARNING: *To avoid shock or fire hazard, if the power lead is worn or cut in any way, replace it immediately.*

Lubrication

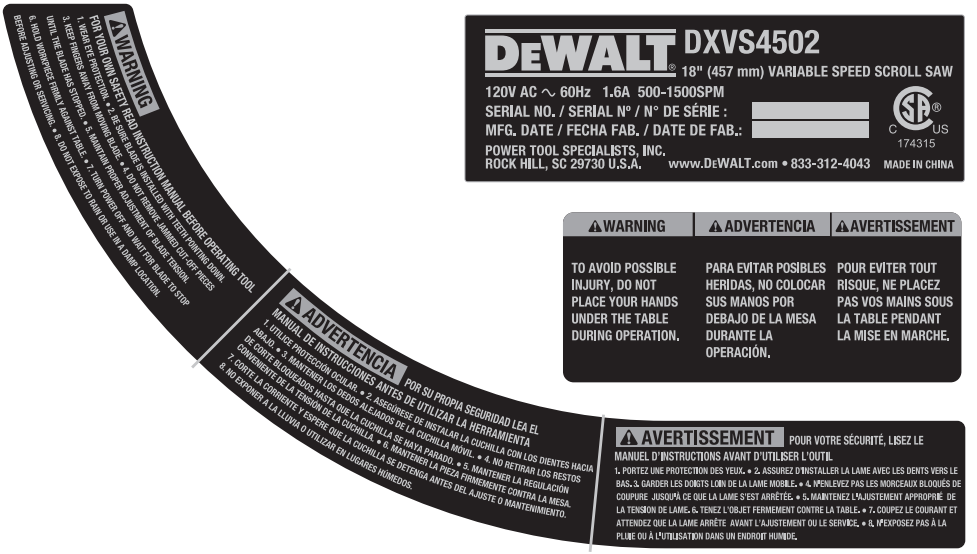
Ball bearings in the scroll saw are packed with grease at the factory and require no further lubrication.

Use only mild soap and a damp cloth to clean the tool. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

IMPORTANT: To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (other than those listed in this manual) should be performed by authorized service centers or other qualified service organizations, always using identical replacement parts.

Free Warning Label Replacement

If your warning labels become illegible or are missing, call 833-312-4043 for a free replacement.



TROUBLESHOOTING GUIDE

BE SURE TO FOLLOW SAFETY RULES AND INSTRUCTIONS

For assistance with your product, visit our website at **www.dewalt.com** for a list of service centers, or call 833-312-4043.

PLEASE READ THE FOLLOWING: The manufacturer and/or distributor is providing the buyer with a parts list and assembly diagram in this manual as a reference tool only. Neither the manufacturer nor distributor make any representation or warranty of any kind to the buyer regarding the accuracy of the list or diagram or that buyer is qualified and able to make any repairs or replace any parts of the product. The manufacturer and/or distributor expressly recommend: that all repairs and/or part replacements only be undertaken by a certified and licensed technician, and not by the buyer. The buyer assumes all risk and liability, including injuries to persons and damage to property, associated with and arising out of any attempt of the buyer at repairs or replacement of parts to the product.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Breaking blades.	1. Wrong tension.	1. Adjust blade tension. See BLADE REMOVAL AND INSTALLATION section.
	2. Overworking blades.	2. Reduce feed rate. See BLADE REMOVAL AND INSTALLATION section.
	3. Wrong blade application.	3. Use narrow blade. See BLADE SELECTION section.
	4. Twisting blade in wood.	4. Avoid side pressure on blade. See BLADE REMOVAL AND INSTALLATION section.
Motor will not run.	1. Defective cord or plug.	1. Contact an authorized Service Center for replacement. ***WARNING:*** *Replace defective parts before using saw again.*
	2. Defective motor.	2. Contact an authorized Service Center. ***WARNING:*** *Any attempt to repair this motor may create a HAZARD unless the repair is done by a qualified technician.*
	3. Blown overload breaker.	3. Push the on/off switch to the OFF (O) position. Let the motor cool. See OPERATION-OVERLOAD BREAKER section.
Excessive vibration. **NOTE:** There will always be some vibration present when the saw is running because of motor operation.	1. Improper mounting of saw.	1. See mounting instructions in this manual for proper mounting technique.
	2. Unsuitable mounting surface.	2. The heavier your workbench is, the less vibration will occur. A plywood workbench will not be as good a work surface as the same size solid lumber.
	3. Loose table or table resting against motor.	3. Tighten the table lock knob.
	4. Loose motor mounting.	4. Tighten motor mounting screw.
Blade run out. Blade not in line with arm motion.	1. Blade holders not aligned.	1. Loosen blade holder lock screw holding blade holder to arms. Adjust position of blade holders. Retighten blade holder lock screw. See BLADE REMOVAL AND INSTALLATION section.

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- **WARRANTY SERVICE:** Registering your product will help you obtain more efficient warranty service in case there is a problem with your product.
- **CONFIRMATION OF OWNERSHIP:** In case of an insurance loss, such as fire, flood or theft, your registration of ownership will serve as your proof of purchase.
- **FOR YOUR SAFETY:** Registering your product will allow us to contact you in the unlikely event a safety notification is required under the Federal Consumer Safety Act.

Register online at **www.dewalt.com/register**

Three Year Limited Warranty

The manufacturer will repair or replace, without charge, any defects due to faulty materials or workmanship for one year from the date of purchase. This warranty does not cover part failure due to normal wear or tool abuse. For further detail of warranty coverage and warranty repair information, visit **www.dewalt.com** or call **833-312-4043.** This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. THIS LIMITED WARRANTY IS GIVEN IN LIEU OF ALL OTHERS, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND EXCLUDES ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary in certain states or provinces.

90 DAY MONEY BACK GUARANTEE

If you are not completely satisfied with the performance of your DeWALT Power Tool, Laser, or Nailer for any reason, you can return it within 90 days from the date of purchase with a receipt for a full refund – no questions asked.

LATIN AMERICA: This warranty does not apply to products sold in Latin America. For products sold in Latin America, see country specific warranty information contained either in the packaging, call the local company or see website for warranty information.

PARTS LIST

18 IN. (457 MM) VARIABLE SPEED SCROLL SAW

Parts list for scroll saw - A

I.D. No.	Description	Size	Q'ty	I.D. No.	Description	Size	Q'ty
08XB	DUST COLLECTOR JOINT		1	0K56	CR. RE. COUNT HD. SCREW	M5*0.8-12	4
0A98	COMPRESSION SPRING		1	0K6X	CR. RE. TRUSS HD. SCREW	M4*0.7-6	1
0AM3	WASHER	D=φ9.5, d=φ5 T=4	1	0K71	CR. RE. TRUSS HD. SCREW	M5*0.8-8	2
0C10	BLADE		1	0K72	CR. RE. TRUSS HD. SCREW	M5*0.8-12	2
0C12	BLADE		1	0K7F	CR. RE. ROUND WASHER HD. SCREW	M5*0.8-8	4
0DEJ	FOOT		3	0K7X	CR. RE. TRUSS HD. ROUND NECK SCREW	M6*1.0-10	1
0DF6	BELLOWS		1	0KBA	CR. RE. PAN HD. TAPPING SCREW	M5*16-12	2
0DF8	PLUG HOUSING		1	0KDJ	CR. RE. PAN HD. SCREW	M5*0.8-12	3
0ES8	PVC HOSE		1	0KDK	CR. RE. PAN HD. SCREW	M5*0.8-16	1
0HFW	BOLT CLAMP		1	0KDV	CR. RE. PAN HD. SCREW	M6*1.0-16	10
0J3M	HEX. WRENCH		1	0KFE	CR. RE. PAN HD. SCREW	M5*0.8-6	1
0J4E	FLAT WASHER	φ6*13-1	2	0KMS	HEX. NUT	M6*1.0 T=5	1
0J4U	FLAT WASHER	φ6*18-1.5	3	0KQW	LOCK NUT	M5*0.8 T=5	1
0J66	FLAT WASHER	φ4*10-1	2	0KQX	NUT	M6*1.0 T=6	2
0JAF	EXTERNAL TOOTH LOCK WASHER	φ5	1	0LN4	WIRE CONNECTOR		1
0JAZ	WAVE WASHER	WW-6	2	22A4	LOCKING CABLE TIE		3
0JB0	WAVE WASHER	WW-8	1	22XF	CR. RE. PAN HD. TAPPING SCREW	M3*20-15	1
0JC8	SPRING PIN		2	23CT	CR. RE. PAN HD. TAPPING SCREW	M5*12-15	2
0JCH	SPRING PIN		2	24ZT	HEX. SOCKET HD. CAP SCREW	M4*0.7-12	1
0JDA	SPRING PIN		1	25B1	CR. RE. TRUSS HD. SCREW	M5*0.8-25	1
0JMM	O-RING		2	25ZQ	SPACER		1
0JPG	HEX. HD. BOLT	M6*1.0-30	1	25ZR	BRACKET STOP		1
0JUD	HEX. SOC. HD. CAP BOLT	M5*0.8-20	3	263T	CROWN NUT	M6*0.75 T=5	1
0JUL	HEX. SOC. HD. CAP BOLT	M6*1.0-20	1	263W	SQUARE NUT	M6*0.75 T=5	1
0JUP	HEX. SOC. HD. CAP BOLT	M6*1.0-35	1	27XG	ROLL PIN		1
0JXR	HEX. SOC. SET SCREW	M8*1.25-8	1	2A4U	TURNTABLE		1
0JZB	HEX. SOC. SET SCREW	M4*0.7-6	1	2BR1	TENSION HANDLE		1
0K0T	HEX. HD. SCREW AND WASHER	M8*1.25-20	7	2EBB	CR. RE. COUNT HD. TAPPING SCREW	M5*12-16	2
0K23	HEX. SOC. HD. CAP SCREW	M6*1.0-16	3	2EBZ	TURNTABLE COVER		1
0K25	HEX. SOCKET HD. CAP SCREW	M5*0.8-20	2	2EC3	PLATE COVER		1
0K2C	HEX. SOCKET HD. CAP SCREW	M8*1.25-16	1	2EC4	GUIDE HOLDER		1

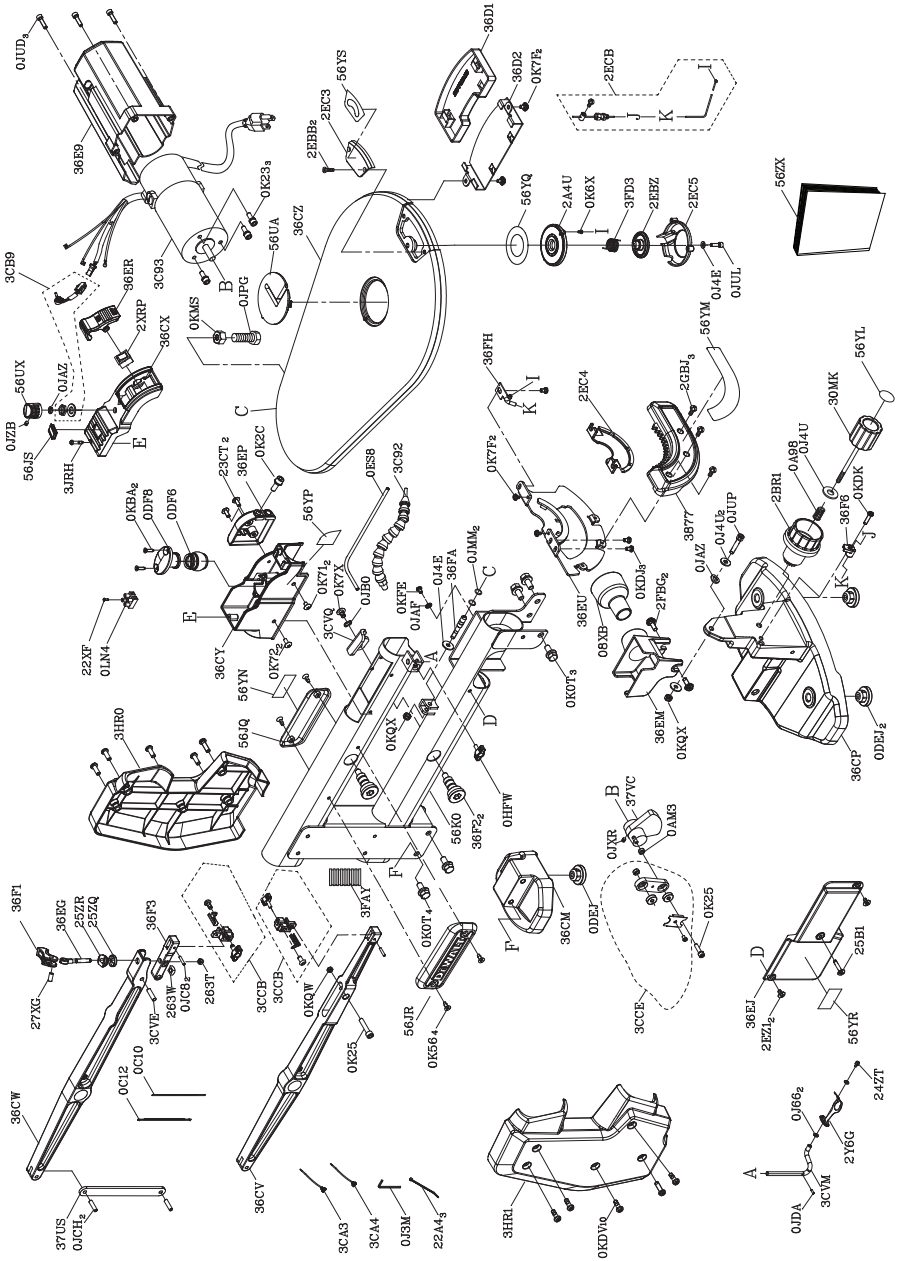
18 IN. (457 MM) VARIABLE SPEED SCROLL SAW

Parts list for scroll saw - B

I.D. No.	Description	Size	Q'ty	I.D. No.	Description	Size	Q'ty
2EC5	COVER		1	37VC	ECCENTRIC		1
2ECB	WIRE ROPE ASS'Y		1	3877	TRUNNION BRACKET		1
2EZ1	CR. RE. TRUSS HD. SCREW	M5*0.8-10	2	3C92	AIR DUCT ASS'Y		1
2FBG	CR. RE. PAN HD. SCREW & WASHER	M6*1.0-12	2	3C93	MOTOR ASS'Y		1
2GBJ	CR. RE. PAN HD. SCREW	M5*0.8-12	3	3CA3	LEAD WIRE ASS'Y		1
2XRP	ROCKER SWITCH		1	3CA4	LEAD WIRE ASS'Y		1
2Y6G	FOLLOWER PLATE		1	3CB9	VARIABLE RESISTOR ASS'Y		1
30MK	PLUNGER HANDLE		1	3CCB	HOLDER BLADE ASS'Y		2
36CM	BASE GROUP		1	3CCE	BEARING SEAT ASS'Y		1
36CP	BASE GROUP		1	3CVE	ROLL PIN		1
36CV	BOTTOM ARM ROCKER		1	3CVM	SUPPORT ROD		1
36CW	UPPER ARM ROCKER		1	3CVQ	ANCHOR PLATE		1
36CX	SWITCH BOX COVER		1	3FAY	PA HOSE		1
36CY	SWITCH BOX GROUP		1	3FD3	SPRING GUARD		1
36CZ	TABLE		1	3HR0	HOUSING RIGHT		1
36D1	BLADE BOX		1	3HR1	HOUSING		1
36D2	RETAINING CLIP		1	3JRH	CR. RE. PAN HD. TAPPING SCREW	M4*16-20	1
36E9	MOTOR COVER		1	56JQ	SIDE COVER		1
36EG	ADJUST BOLT		1	56JR	SIDE COVER		1
36EJ	SIDE COVER		1	56JS	END PLUG		1
36EM	DUST COLLECTOR		1	56K0	BODY ASS'Y		1
36EP	SWITCH BOX COVER		1	56UA	INSERT		1
36ER	PUSH BUTTON		1	56UX	SPEED DIAL		1
36EU	SCALE		1	56YL	CAUTION LABEL		1
36F1	CLAMP HANDLE		1	56YM	WARNING LABEL		1
36F2	SPECIAL BOLT		2	56YN	LABEL		1
36F3	LOCKING ROD		1	56YP	CAUTION LABEL		1
36F6	GUIDE BLOCK		1	56YQ	TILTING SCALE		1
36FA	SHAFT-PIVOT		1	56YR	WARNING LABEL		1
36FH	RETAINING CLIP ASS'Y		1	56YS	CAUTION LABEL		1
37US	STRAIGHT LINKAGE BAR		1	56ZX	INSTRUCTION MANUAL		1

18 IN. (457 MM) VARIABLE SPEED SCROLL SAW

Schematic for scroll saw



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