

DWE357

Compact Variable Speed Reciprocating Saw

Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.

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

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

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

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



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

General Power Tool Safety Warnings

WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

Additional Specific Safety Rules for Reciprocating Saws

- Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- Hold saw firmly with both hands for all cutting operations. During cutting operations, the blade may suddenly bind in the work and may cause the saw to kickback towards the operator.
- Keep hands away from moving parts. Never place your hands near the cutting area.
- Use extra caution when cutting overhead and pay particular attention to overhead wires which may be hidden from view. Anticipate the path of falling branches and debris ahead of time.
- Do not operate this tool for long periods of time. Vibration caused by the operating action of this tool may cause permanent injury to fingers, hands, and arms. Use gloves to provide extra cushion, take frequent rest periods, and limit daily time of use.
- Air vents often cover moving parts and should be avoided. Loose clothes, jewelry or long hair can be caught in moving parts.
- An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety. The smaller the gauge number of the wire, the greater the capacity of the cable, that is 16 gauge has more capacity than 18 gauge. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size. The following table 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.

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

AWARNING: 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.

AWARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains 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 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

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.

A 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.

AWARNING: 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.

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

Vvolts	Aamperes			
Hzhertz	Wwatts			
minminutes	\sim or ACalternating current			
=== or DCdirect current	abla or AC/DCalternating or direct current			
Class I Construction	n _o no load speed			
(grounded)	nrated speed			
Class II Construction	eqearthing terminal			
(double insulated)	Asafety alert symbol			
/minper minute	BPMbeats per minute			
IPMimpacts per minute	RPMrevolutions per minute			
SPMstrokes per minute	sfpmsurface feet per minute			

SAVE THESE INSTRUCTIONS FOR FUTURE USE

can reduce dust-related hazards.

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.
- Disconnect the plug from the power source and/or the battery pack 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. 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.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp f) cutting edges are less likely to bind and are easier to control.
- 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.

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.

Motor

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

A CAUTION: Use only on AC power supply (NOT DC).

COMPONENTS (Fig. 1)

AWARNING: Never modify the power tool or any part of it. Damage or personal injury could result.

- A. Trigger switchD. ShoeB. Main handleE. Hand grip
- C. Blade clamp release lever

INTENDED USE

This compact variable speed reciprocating saw is designed for professional cutting of wood, metal, plastic and drywall.

DO NOT use under wet conditions or in presence of flammable liquids or gases. This reciprocating saw is a professional power tool. **DO NOT** let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

Variable Speed Trigger Switch (Fig. 1)

AWARNING: This tool has no provision to lock the switch in the ON position, and should never be locked ON by any other means.

The variable speed trigger switch (A) will give you added versatility. The further the trigger is depressed the higher the speed of the saw.

ACAUTION: Use of very slow speed is recommended only for beginning a cut. Prolonged use at very slow speed may damage your saw.

OPERATION

A WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

Blade Installation and Removal (Fig. 2-4, 7)

Different blade lengths are available. Use the appropriate blade for the application. The blade should be longer than 3-1/2" (89 mm) and should extend past the shoe and the thickness of the workpiece during the cut. Do not use jigsaw blades with this tool.

ÀWARNING: Cut hazard. Blade breakage may occur if the blade does not extend past the shoe and the workpiece during the cut (Fig. 2). Increased risk of personal injury, as well as damage to the shoe and workpiece may result.

TO INSTALL BLADE INTO SAW

- 1. Pull blade clamp release lever (C) up (Fig. 3).
- 2. Insert blade shank from the front.
- 3. Push blade clamp release lever down.

NOTE: The blade can be installed in four positions as shown in Figure 4. The blade can be installed upside-down to assist in flush-to cutting as shown in Figure 7.

TO REMOVE BLADE FROM SAW

ACAUTION: Burn hazard. Do not touch the the blade immediately after use. Contact with the blade may result in personal injury.

- 1. Open up blade clamp release lever.
- 2. Remove blade.

Proper Hand Position (Fig. 1, 5–9)

A WARNING: To reduce the risk of serious personal injury, **ALWAYS** use proper hand position as shown.

AWARNING: To reduce the risk of serious personal injury, **ALWAYS** hold securely in anticipation of a sudden reaction.

Proper hand position requires one hand on the main handle (B), with the other hand on the hand grip (E).

Cutting with Blade in Horizontal Position (Fig. 5)

Your DWE357 is equipped with a horizontal blade clamp. Installing a blade in the horizontal orientation allows cutting close to floors, walls or ceilings where limited clearance is available. Ensure that the shoe is pressed against the framing to avoid kickback.

Shoe

ACAUTION: Cut hazard. To prevent loss of control, never use tool without shoe. The DWE357 comes with a fixed shoe that is not adjustable.

Cutting (Fig. 5–9)

AWARNING: Always use eye protection. All users and bystanders must wear eye protection that conforms to ANSI Z87.1.

AWARNING: Exercise extra caution when cutting towards operator. Always hold saw firmly with both hands while cutting.

Before cutting any type of material, be sure it is firmly anchored or clamped to prevent slipping. Place blade lightly against work to be cut, switch on saw motor and allow it to obtain maximum speed before applying pressure. Whenever possible, the saw shoe must be held firmly against the material being cut (Fig. 6). This will prevent the saw from jumping or vibrating and minimize blade breakage. Any cuts which put pressure on the blade such as angle or scroll cuts increase potential for vibration, kickback, and blade breakage.

ÀWARNING: Use extra caution when cutting overhead and pay particular attention to overhead wires which may be hidden from view. Anticipate the path of falling branches and debris ahead of time.

AWARNING: Inspect work site for hidden gas pipes, water pipes or electrical wires before making blind or plunge cuts. Failure to do so may result in explosion, property damage, electric shock, and/or serious personal injury.

FLUSH-TO CUTTING (FIG. 7)

The compact design of the saw motor housing and spindle housing permits extremely close















FIG. 1

cutting to floors, corners and other difficult areas.

POCKET/PLUNGE CUTTING - WOOD ONLY (FIG. 8)

The initial step in pocket cutting is to measure the surface area to be cut and mark clearly with a pencil, chalk or scriber. Use the appropriate blade for the application. The blade should be longer than 3-1/2" (89 mm) and should extend past the shoe and the thickness of the workpiece during the cut. Insert blade in blade clamp.

Next, tip the saw backward until the back edge of the shoe is resting on the work surface and the blade clears the work surface (position 1, Fig. 8). Now switch motor on, and allow saw to come up to speed. Grip saw firmly with both hands and begin a slow, deliberate upward swing with the handle of the saw, keeping the bottom of the shoe firmly in contact with the workpiece (position 2, Fig. 8). Blade will begin to feed into material. Always be sure blade is completely through material before continuing with pocket cut.

NOTE: In areas where blade visibility is limited, use the edge of the saw shoe as a guide. Lines for any given cut should be extended beyond edge of cut to be made.

METAL CUTTING (FIG. 9)

Your saw has different metal cutting capacities depending upon type of blade used and the metal to be cut. Use a finer blade for ferrous metals and a coarse blade for non-ferrous materials. In thin gauge sheet metals it is best to clamp wood to both sides of sheet. This will insure a clean cut without excess vibration or tearing of metal. Always remember not to force cutting blade as this reduces blade life and causes costly blade breakage.

NOTE: It is generally recommended that when cutting metals you should spread a thin film of oil or other lubricant along the line ahead of the saw cut for easier operation and longer blade life.

MAINTENANCE

A WARNING: To reduce the risk of injury, turn unit off and disconnect it from power source before installing and removing accessories, before adjusting or when making repairs. An accidental start-up can cause injury.

Cleaning

A WARNING: Blow dirt and dust out of all air vents with clean, dry air at least once a week. To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection when performing this.

A WARNING: Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the plastic materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.



FIG. 8

 STARTING POSITION FOR POCKET CUTTING
 ROCK TOOL UP TO NORMAL CUTTING POSITION AFTER BLADE HAS CUT THROUGH MATERIAL.



