

The following are trademarks for one or more DEWALT power tools: the yellow and black color scheme; the "D" shaped air intake grill; the array of pyramids on the handgrip; the kit box configuration; and the array of lozenge-shaped humps on the surface of the tool.

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.

À 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

INSTRUCTION MANUAL

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 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. 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

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. 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 dust collection 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. 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 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 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.

Safety Instructions for All Saws **CUTTING PROCEDURES**

could give the operator an electric shock.

- a) ADANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing. If both hands are holding the saw, they cannot be cut by the blade.
- b) Do not reach underneath the workpiece. The guard cannot protect you from the blade
- below the workpiece. c) Adjust the cutting depth to the thickness of the workpiece. Less than a full tooth of
- the blade teeth should be visible below the workpiece. d) Never hold piece being cut in your hands or across your leg. Secure the workpiece to a stable platform. It is important to support the work properly to minimize body
- exposure, blade binding, or loss of control. e) Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will also make exposed metal parts of the power tool "live" and

- When ripping, always use a rip fence or straight edge guide. This improves the accuracy of cut and reduces the chance of blade binding.
- g) Always use blades with correct size and shape (diamond versus round) of arbor holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- h) Never use damaged or incorrect blade washers or bolt. The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

Further Safety Instructions for All Saws

KICKBACK CAUSES AND RELATED WARNINGS

- Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an
- uncontrolled saw to lift up and out of the workpiece toward the operator; When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and
- the motor reaction drives the unit rapidly back toward the operator; If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade
- can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

kickback forces. Position your body to either side of the blade, but not in line with the blade. Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken. When blade is binding, or when interrupting a cut for any reason, release the

a) Maintain a firm grip with both hands on the saw and position your arms to resist

- trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur. Investigate and take corrective actions to eliminate the cause of blade binding.
- When restarting a saw in the workpiece, center the saw blade in the kerf and check that saw teeth are not engaged into the material. If saw blade is binding, it may
- walk up or kickback from the workpiece as the saw is restarted. Support large panels to minimise the risk of blade pinching and kickback. Large panels tend to sag under their own weight. Supports must be placed under the panel on
- both sides, near the line of cut and near the edge of the panel. e) Do not use dull or damaged blades. Unsharpened or improperly set blades produce
- narrow kerf causing excessive friction, blade binding and kickback. Blade depth and bevel adjusting locking levers must be tight and secure before
- making cut. If blade adjustment shifts while cutting, it may cause binding and kickback. Use extra caution when sawing into existing walls or other blind areas. The protruding blade may cut objects that can cause kickback.
- a) Check lower guard for proper closing before each use. Do not operate the saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position. If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b) Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use. Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- Lower guard should be retracted manually only for special cuts such as "plunge cuts" and "compound cuts." Raise lower guard by retracting handle and as soon as blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
- d) Always observe that the lower guard is covering the blade before placing saw down on bench or floor. An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

Additional Specific Safety Instructions for Circular Saws AWARNING: Do not use abrasive wheels or blades.

AWARNING: Do not use water feed attachments.

LOWER GUARD FUNCTION

AWARNING: Blades coast after turn off. Serious personal injury may result.

- 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.
- Keep your body positioned to either side of the blade, but not in line with the saw blade. Kickback could cause the saw to jump backwards (Refer to KICKBACK CAUSES AND RELATED WARNINGS and KICKBACK).
- Avoid cutting nails. Inspect for and remove all nails from lumber before cutting. Accessories must be rated for at least the speed recommended on the tool warning
- label. Wheels and other accessories running over rated speed can fly apart and cause injury. Accessory ratings must always be above tool speed as shown on tool nameplate. Always make sure the saw is clean before using.
- Stop using this saw and have it properly serviced if any unusual noise or abnormal operation
- occcurs. Always be sure all components are mounted properly and securely before using tool.
- Always handle the saw blade with care when mounting or removing it.
- Always wait until the motor has reached full speed before starting a cut.
- Always keep handles dry, clean and free of oil and grease. Hold the tool firmly with both hands when in use.
- Always be alert at all times, especially during repetitive, monotonous operations. Always be sure of position of your hands relative to the blade. Stay clear of end pieces that may fall after cutting off. They may be hot, sharp and/or heavy.
- Serious personal injury may result. Replace or repair damaged cords. Make sure your extension cord is in good condition. Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole receptacles
- that accept the tool's plug. 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		Total Length of Cord in Feet (meters)				
Ampe			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	AWG					
Than	Than		AWG				
0	6		18	16	16	14	
6	10		18	16	14	12	
10	12		16	16	14	12	
10	10	1	-1.4	10	NI-t D		

14 12 Not Recommended **À WARNING: 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 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:** Cutting plastics, sap coated wood, and other materials may cause melted material to accumulate on the blade tips and the body of the saw blade, increasing the risk of blade overheating and binding while cutting.

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	∼ or AC/DCalternating or direct current					
UClass I Construction	n _o no load speed					
(grounded)	nrated speed					
□Class II Construction	⊕earthing terminal					
(double insulated)	🛕safety 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						

F. Blade

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. **COMPONENTS (Fig. 1, 2)**

A. End cap

B. Trigger switch G. Outer clamp washer

C. Lower blade guard retracting lever H. Blade clamping screw D. Lower blade guard I. Blade lock

E. Inner clamp washer J. Shoe

INTENDED USE This heavy-duty circular saw is designed for professional cutting of wood.

DO NOT use under wet conditions or in presence of flammable liquids or gases. This heavy-duty circular 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.

Electric Brake

Your saw has an automatic electric brake which is designed to stop the blade from coasting in about two seconds after you release the trigger switch (B). It is useful when making certain cuts in

wood where a coasting blade would result in a wide, imprecise cut. Occasionally, under certain conditions, the brake will not function properly and won't stop the saw in the 2 seconds discussed above. If this condition persists, turn the saw on and off four

or five times. If the brake still does not stop the blade in about 2 seconds, the problem may be worn brushes. Replace the brushes as described below and try the saw again. If the problem still persists, have the tool serviced at a DEWALT certified service center.

ASSEMBLY AND ADJUSTMENTS

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.

ATTACHING AND REMOVING BLADES (FIG. 2, 3)

To attach the blade, retract lower blade guard (D) using the retracting lever (C) and place inner clamp washer (E) and blade (F) on saw spindle with teeth at bottom of blade pointing forward. Install outer clamp washer (G). The larger surfaces of both washers must face the blade. Thread on blade clamping screw (H) firmly by hand to hold washers in position.

Lightly depress the blade lock (I) while turning the spindle until the blade stops rotating. Tighten

blade clamping screw (clockwise) firmly with the blade wrench (Fig. 3). NEVER ENGAGE BLADE LOCK WHILE SAW IS RUNNING, OR ENGAGE IN AN EFFORT TO

STOP THE TOOL. NEVER TURN SWITCH ON WHEN BLADE LOCK IS ENGAGED. When removing the blade, first unplug the saw. Engage the blade lock and unscrew the blade

clamping screw by turning it counter-clockwise with the blade wrench.

CUTTING DEPTH ADJUSTMENT (FIG. 4)

Loosen (counterclockwise) the cutting depth adjustment knob (K). Lift the saw handle, as shown, to adjust it to the desired height. Tighten the knob to secure it in place. If depth of cut cannot be adjusted, inspect parts for damage and service as required before use. A scale and pointer are provided to enable you to select a specific depth of cut. Simply align the pointer to the desired

so that about one half of a tooth projects below the surface of the wood to be cut. The height of a whole tooth is the distance from the tip of the tooth to the bottom of the gullet in front of it. Study Figures 5A and 5B to determine what one half tooth means. (Figure 5A shows one half tooth projecting below the surface and Figure 5B shows a whole tooth projecting below the surface.) Setting the saw at the proper cutting depth keeps blade friction to a minimum, removes sawdust from between the blade teeth, results in cooler, faster sawing and reduces the chance of kickback. A method of checking for the correct cutting depth is shown in Figure 6. Lay a piece of the material you plan to cut along the side of the blade, as shown in the figure, and observe how much tooth projects beyond the material

NOTE: When using a non carbide tipped blade, make an exception to the above procedure and allow a full tooth to project below the material, as shown in Figure 5B.

BEVEL ANGLE ADJUSTMENT (FIG. 7)

The full range of the Bevel Adjustment is from 0 to 50 DEGREES. The quadrant (L) is graduated in increments of 1 degree.

On the front of the saw is a bevel angle adjustment mechanism consisting of a calibrated quadrant (L) and a bevel adjustment knob (M). To set the saw for a bevel cut, loosen (counterclockwise) the quadrant knob and tilt shoe to the desired angle by aligning the pointer with the desired angle mark. Retighten knob firmly (clockwise).

KERF INDICATOR (FIG. 8)

The front of the saw shoe has a kerf indicator (N) for vertical and bevel cutting. This indicator enables you to guide the saw along cutting lines penciled on the material being cut. The indicator lines up with the left (inner) side of the saw blade, which makes the slot or "kerf" cut by the moving blade fall to the right of the indicator. Guide along the penciled cutting line so that the kerf falls into the waste or surplus material. Figure 8 shows the dimensions of the shoe. Note that the left side is 5 1/2" (140mm) between the left side of the blade and the left edge of the shoe (standard 6x lumber). The right dimension is 1-1/2" (38mm) (standard 2x lumber).

SHOE ALIGNMENT

Your saw has been set at the factory for accurate vertical cuts (a 90 degree angle between the bottom of the shoe (J) and the blade (F). The edge of the shoe has also been set parallel to the blade so that it will not bind when using an edge guide. If the saw should ever need adjustment, it may be

ADJUSTING FOR 90° CUTS (FIG. 9-11)

- 1. DISCONNECT PLUG FROM POWER SUPPLY.
- 2. Adjust the saw to 0° bevel.
- 3. Place saw on blade side (Fig. 9). Retract blade guard.
- 4. Loosen quadrant knob. Place a square against the blade and shoe to adjust the 90° setting. 5. Loosen the hex nut (O) and move the adjustment screw (P) so that the shoe will stop at the
- proper angle as shown in Figure 11. Lock the screw in place by tightening the hex nut.
- 6. It may be necessary to adjust the quadrant angle pointer to line up on "0" after shoe has been

ADJUSTING THE SHOE PARALLEL TO THE BLADE

- 1. DISCONNECT PLUG FROM POWER SUPPLY.
- 2. Loosen the hex nut (O) shown in Figure 10 and then turn the adjustment screw (P) in or out as needed to adjust for parallelism.
- 3. Adjust the shoe until it is parallel to the blade by measuring from the edge of the shoe to the blade, front and rear. You can measure from the outside edge of the blade to the shoe as shown in Figure 8 or from the inner edge of the blade to the wider part of the shoe. (Do not measure from the tips of any saw blade teeth.)
- 4. When the shoe and blade are parallel, hold the adjusting screw in place and tighten the hex nut firmly.

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. Switch

Pull the trigger switch (B) to turn the motor "ON". Releasing the trigger turns the motor "OFF". Releasing the trigger also automatically actuates the electric brake. This tool has no provision to lock the switch in the "ON" position, and should never be locked "ON" by any other means.

AWARNING: Avoid contact with the blade teeth to prevent personal injury. **NOTICE:** Never engage the blade lock while saw is running, or engage in an effort to stop the tool.

Never turn the saw on while the blade lock is engaged. Serious damage to your saw will result. TO INSTALL THE BLADE 1. Place inner clamp washer (E) on saw spindle with the large flat surface facing out toward the

- 2. Using the lever (C), retract the lower blade guard (D) and place blade on saw spindle against the inner clamp washer, making sure that the blade will rotate in the proper direction (the direction of the rotation arrow on the saw blade and the teeth must point in the same direction as the direction of rotation arrow on the saw). Do not assume that the printing on the blade will always be facing you when properly installed. When retracting the lower blade guard to install the blade, check the condition and operation of the lower blade guard to assure that it is working properly. Make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- 3. Place outer clamp washer (G) on saw spindle with the large flat surface against the blade and the wording on the outer clamp washer facing you.
- 4. Thread blade clamping screw (H) into saw spindle by hand (screw has right-hand threads and must be turned clockwise to tighten).
- 5. Depress the blade lock (I) while turning the saw spindle with the blade wrench until the blade lock engages and the blade stops rotating (Fig. 3).
- 6. Tighten the blade clamping screw firmly with the blade wrench.

NOTE: Never engage the blade lock while saw is running, or engage in an effort to stop the tool. Never turn the saw on while the blade lock is engaged. Serious damage to your saw will result.

TO REPLACE THE BLADE

- 1. To loosen the blade clamping screw (H), depress the blade lock (I) and turn the saw spindle with the blade wrench until the blade lock engages and the blade stops rotating. With the blade lock engaged, turn the blade clamping screw counterclockwise with the blade wrench (screw has right-hand threads and must be turned counterclockwise to loosen).
- 2. Remove the blade clamping screw (H) and outer clamp washer (G) only. Remove old blade.
- 3. Clean any sawdust that may have accumulated in the guard or clamp washer area and check the condition and operation of the lower blade guard as previously outlined. Do not lubricate
- 4. Select the proper blade for the application (see **Blades**). Always use blades that are the correct size (diameter specified on the rating label of the tool) with the proper size and shape center hole for mounting on the saw spindle. Always assure that the maximum recommended speed (rpm) on the saw blade meets or exceeds the speed (rpm) of the saw.
- 5. Follow steps 2 through 6 under To Install the Blade, making sure that the blade will rotate in the proper direction.

LOWER BLADE GUARD

AWARNING: The lower blade guard is a safety feature which reduces the risk of serious personal injury. Never use the saw if the lower guard is missing, damaged, misassembled or not working properly. Do not rely on the lower blade guard to protect you under all circumstances. Your safety depends on following all warnings and precautions as well as proper operation of the saw. Check lower guard for proper closing before each use as outlined in Additional Safety Rules for Circular Saws. If the lower blade guard is missing or not working properly, have the saw serviced before using. To assure product safety and reliability, repair, maintenance and adjustment should be performed by an authorized DEWALT service center or other qualified service organization, always using identical replacement parts.

Workpiece Support

AWARNING: Hands should be kept away from cutting area to reduce the risk of injury. AWARNING: The power cord should be positioned clear of the cutting area so that it will not get

caught or hung up on the work and to prevent electric shock. AWARNING: When operating the saw, keep the cord away from the cutting area to prevent

AWARNING: It is important to support the work properly and to hold the saw firmly to prevent loss of control which could cause personal injury; Figure 17 illustrates typical hand support of the

Figure 12 and 13 show proper sawing position. Figure 14 and 16 show an unsafe condition. To avoid kickback, DO support board or panel NEAR the cut (Fig. 14). DON'T support board or

panel away from the cut (Fig. 14, 16). Place the work with its "good" side - the one on which appearance is most important - down. The saw cuts upward, so any splintering will be on the work face that is up when you saw it.

Support the work so that the cut will be on your right. Place the wider portion of the saw shoe on that part of the work piece which is solidly supported, not on the section that will fall off when the cut is made. As examples, Figure 15 illustrates the RIGHT way to cut off the end of a board, and Figure 16 the WRONG way. Always clamp work. Don't try to hold short pieces by hand! Remember to support cantilevered and overhanging material. Use caution when sawing material from below.

Cutting

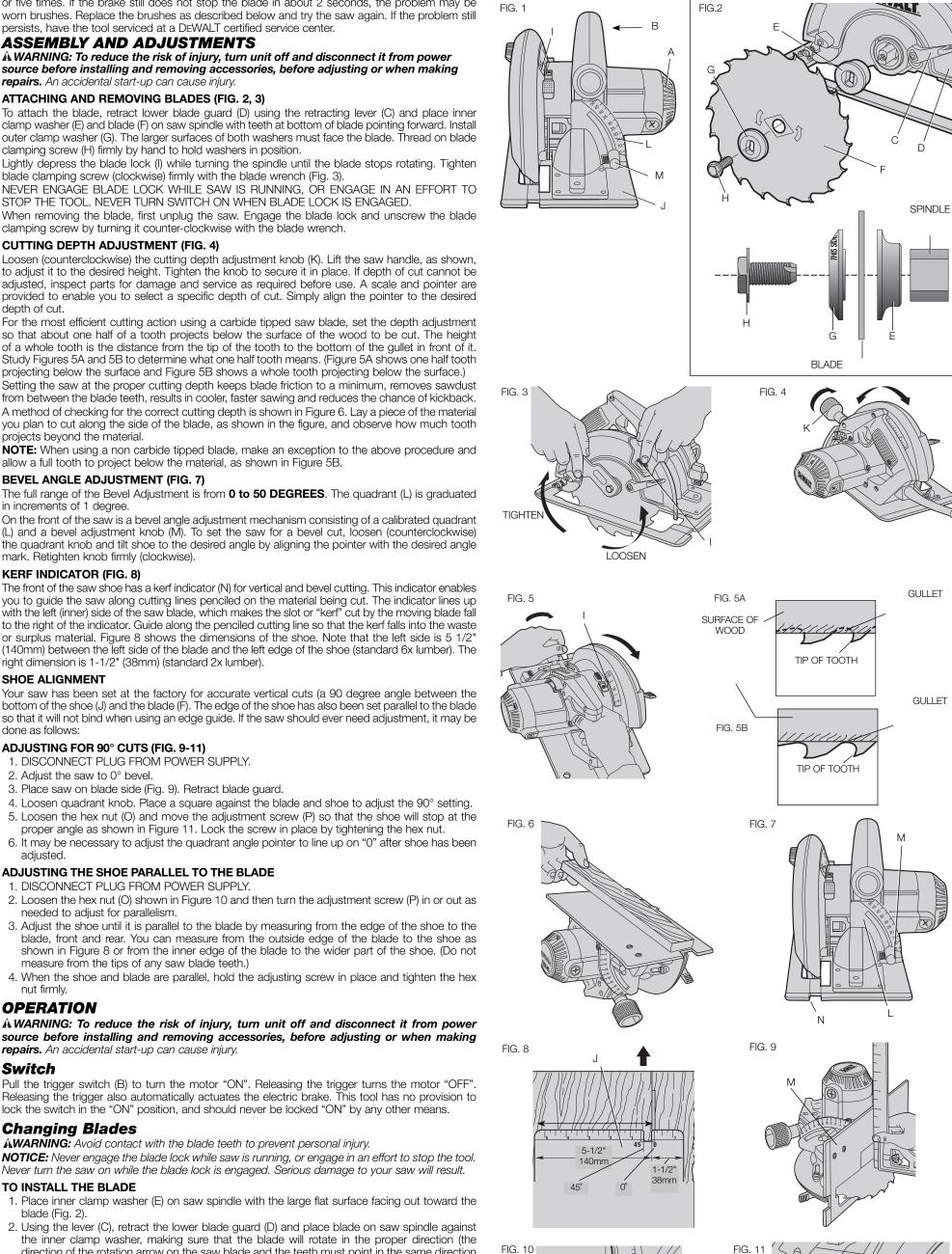
Be sure saw is up to full speed before blade contacts material to be cut. Starting saw with blade against material to be cut or pushed forward into kerf can result in kickback.

Push the saw forward at a speed which allows the blade to cut without laboring. Hardness and toughness can vary even in the same piece of material, and knotty or damp sections can put a

heavy load on the saw. When this happens, push the saw more slowly, but hard enough to keep it working without much decrease in speed. Forcing the saw can cause rough cuts, inaccuracy, kickback and over-heating of the motor. Should your cut begin to go off the line, don't try to force it back on. Release the switch and allow

blade to come to a complete stop. Then you can withdraw the saw, sight anew, and start a new cut slightly inside the wrong one. In any event, withdraw the saw if you must shift the cut. Forcing a correction inside the cut can stall the saw and lead to kickback. IF SAW STALLS, RELEASE THE TRIGGER AND BACK THE SAW UNTIL IT IS LOOSE. BE SURE BLADE IS STRAIGHT IN THE CUT AND CLEAR OF THE CUTTING EDGE BEFORE RESTARTING.

As you finish a cut, release the trigger and allow the blade to stop before lifting the saw from the work. As you lift the saw, the spring-tensioned telescoping guard will automatically close under the blade. Remember the blade is exposed until this occurs, never reach under the work for any



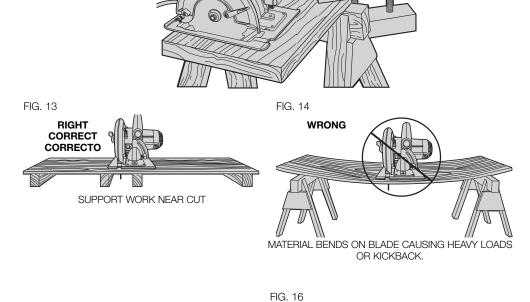
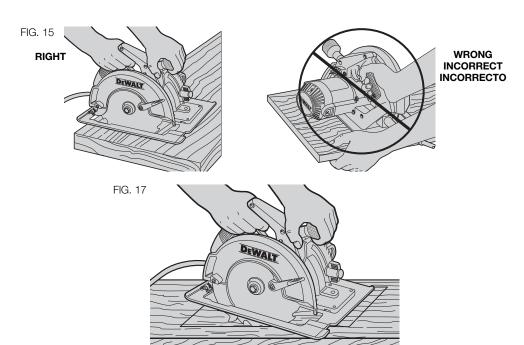


FIG. 12



reason whatsoever. When you have to retract the telescoping guard manually (as is necessary for

starting pocket cuts) always use the retracting lever. NOTE: When cutting thin strips, be careful to ensure that small cutoff pieces don't hang up on inside of lower quard.

Always use a fence or straight edge guide when ripping.

POCKET CUTTING (FIG. 17)

AWARNING: Use the lever (C) provided on the lower guard when you have to retract the guard

Adjust saw shoe so blade cuts at desired depth. Tilt saw forward and rest front of the shoe on material to be cut. Using the retracting lever, retract blade guard to an upward position. Lower rear of shoe until blade teeth almost touch cutting line. Now release the blade guard and its contact with the work will keep it in position to open freely as you start the cut. Start the motor and gradually lower the saw until its shoe rests flat on the material to be cut. Advance saw along the cutting line until cut is completed. Release trigger and allow blade to stop completely before withdrawing the blade from the material. When starting each new cut, repeat as above. Never tie the blade guard in a raised position.

KICKBACK

When the saw blade becomes pinched or twisted in the cut, kickback can occur. The saw is thrust rapidly back toward the operator. When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit backward. When the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator. Kickback is more likely to occur when any of the following conditions exist.

1. IMPROPER WORKPIECE SUPPORT

- A. Sagging or improper lifting of the cut off piece can cause pinching of the blade and lead to kickback (Fig. 14).
- B. Cutting through material supported at the outer ends only can cause kickback. As the material weakens it sags, closing down the kerf and pinching the blade.
- C. Cutting off a cantilevered or overhanging piece of material from the bottom up in a vertical direction can cause kickback. The falling cut off piece can pinch the blade.
- D. Cutting off long narrow strips (as in ripping) can cause kickback. The cut off strip can sag or twist closing the kerf and pinching the blade.
- E. Snagging the lower guard on a surface below the material being cut momentarily reduces operator control. The saw can lift partially out of the cut increasing the chance of blade twist.

2. IMPROPER DEPTH OF CUT SETTING ON SAW

To make the most efficient cut, the blade should protrude only far enough to expose 1/2 of a tooth as shown in Figure 5. This allows the shoe to support the blade and minimizes twisting and pinching in the material. See the section titled "Cutting Depth Adjustment."

3. BLADE TWISTING (MISALIGNMENT IN CUT)

- A. Pushing harder to cut through a knot, a nail, or a hard grain area can cause the blade to
- B. Trying to turn the saw in the cut (trying to get back on the marked line) can cause blade twist C. Over-reaching or operating the saw with poor body control (out of balance), can result in twisting the blade.
- D. Changing hand grip or body position while cutting can result in blade twist.
- E. Backing up the saw to clear blade can lead to twist if it is not done carefully.

4 MATERIALS THAT REQUIRE EXTRA ATTENTION

A. Wet lumber

B. Green lumber (material freshly cut or not kiln dried)

C. Pressure treated lumber (material treated with preservatives or anti-rot chemicals)

5. USE OF DULL OR DIRTY BLADES Dull blades cause increased loading of the saw. To compensate, an operator will usually

push harder which further loads the unit and promotes twisting of the blade in the kerf. Worn blades may also have insufficient body clearance which increases the chance of binding and increased loading 6. LIFTING THE SAW WHEN MAKING BEVEL CUT

Bevel cuts require special operator attention to proper cutting techniques - especially guidance

of the saw. Both blade angle to the shoe and greater blade surface in the material increase the chance for binding and misalignment (twist) to occur.

7. RESTARTING A CUT WITH THE BLADE TEETH JAMMED AGAINST THE MATERIAL

The saw should be brought up to full operating speed before starting a cut or restarting a cut after the unit has been stopped with the blade in the kerf. Failure to do so can cause stalling

Any other conditions which could result in pinching, binding, twisting, or misalignment of the blade could cause kickback. Refer to the sections on Adjustments And Set-Up and Operation for procedures and techniques that will minimize the occurrence of kickback.

Blades

AWARNING: To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection. Carbide is a hard but brittle material. Foreign objects in the work piece such as wire or nails can cause tips to crack or break. Only operate saw when proper saw blade guard is in place. Mount blade securely in proper rotation before using, and always use a clean, sharp blade.

AWARNING: Do not cut metal, masonry, glass, masonry-type planking, cement board, tile or plastic with this saw. Damage to the saw and personal injury may result.

A dull blade will cause inefficient cutting, overload on the saw motor, excessive splintering and increase the possibility of kickback. Change blades when it is no longer easy to push the saw through the cut, when the motor is straining, or when excessive heat is built up in the blade. It is a good practice to keep extra blades on hand so that sharp blades are available for immediate use. Dull blades can be sharpened in most areas; see SAWS-SHARPENING in the yellow pages. Hardened gum on the blade can be removed with kerosene, turpentine, or oven cleaner. Anti-stick coated blades can be used in applications where excessive build-up is encountered, such as pressure treated and green lumber.

DEWALT manufactures a complete line of saw blades that are available from your service center. VISUALLY EXAMINE CARBIDÉ BLADES BEFORE USE. REPLACE IF DAMAGED.

MAINTENANCE

AWARNING: 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.

Brushes

AWARNING: To reduce the risk of injury, DO NOT TIE, TAPE, OR OTHERWISE LOCK THE TRIGGER SWITCH ON while "running in". HOLD BY HAND ONLY.

Inspect carbon brushes regularly by unplugging tool, removing the brush inspection cap (Q) (Fig.) and withdrawing the brush assembly. Keep brushes clean and sliding freely in their guides. Always replace a used brush in the same orientation in the holder as it was prior to removal. Carbon brushes have varying symbols stamped into their sides, and if the brushes are worn down to the line closest to the spring, they must be replaced. Use only identical DEWALT brushes. Always replace both brushes. Use of the correct grade of brush is essential for proper operation of electric brakes. New brush assemblies are available at your local DEWALT certified service center. The tool should be allowed to "run in" (run at no load without blade) for 10 minutes before use to seat new brushes. This is especially important for saws equipped with electric brakes, which may be erratic in operation until the brushes are properly

seated (worn in). Cleaning

À 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

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.

Lubrication

Self lubricating ball and roller bearings are used in the tool and relubrication is not required. However, it is recommended that, once a year, you take or send the tool to a service center for a thorough cleaning, inspection and lubrication of the gear case.

À WARNING: Since accessories, other than those offered by DEWALT, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DEWALT recommended accessories should be used with this product.

A. RIP FENCE—attaches to top of saw shoe; permits rip cuts without penciled guide line. B. SAW PROTRACTOR—guides saw for accurate cut-off work; adjusts from 0 to 70 degrees.

C. CUT-OFF GUIDE—for 90 degree or 45 degree cuts.

Repairs

The charger and battery pack are not serviceable. To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (including brush

inspection and replacement) should be performed by a DEWALT factory service center, a DEWALT authorized service center or other qualified service personnel. Always use identical replacement parts.