

# DEWALT®



**Instruction Manual**

**DCS520**  
**60V Track Saw**

## 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. A1

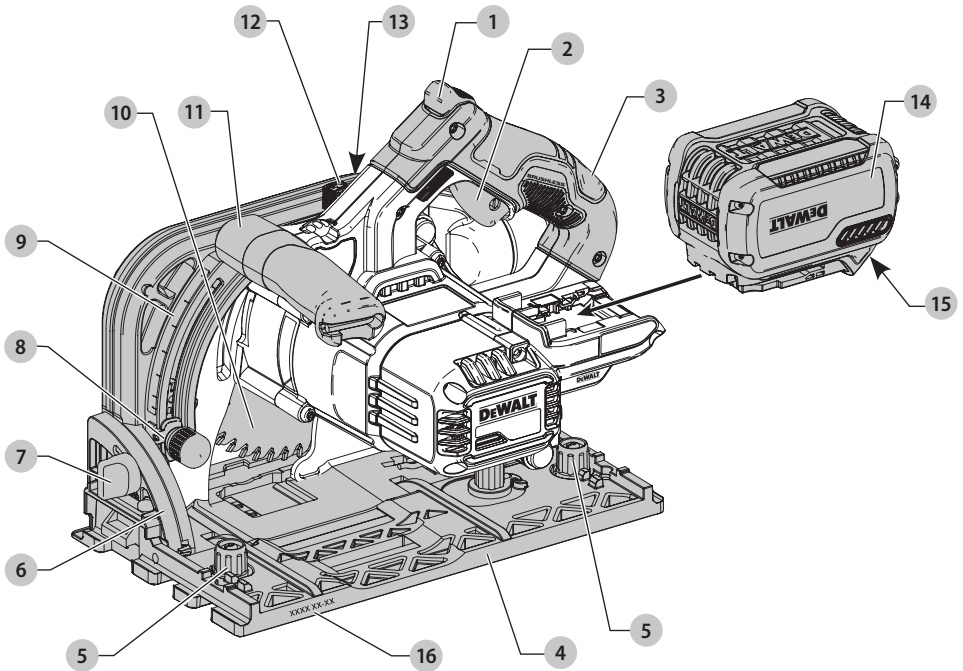


Fig. A1, A2

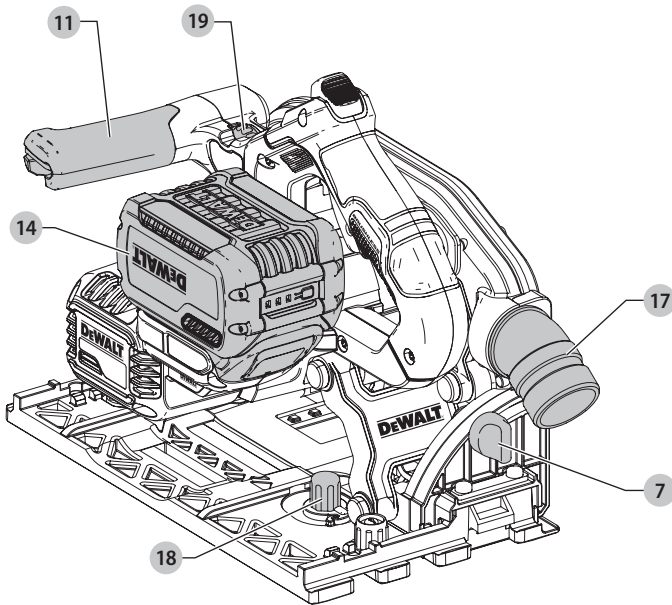
- |                         |                           |
|-------------------------|---------------------------|
| 1 Plunge trigger        | 11 Front handle           |
| 2 On/off switch         | 12 Spindle lock button    |
| 3 Main handle           | 13 Spindle lock lever     |
| 4 Shoe                  | 14 Battery pack           |
| 5 Rail adjustment knobs | 15 Battery release button |
| 6 Bevel scale           | 16 Date code              |
| 7 Bevel adjustment knob | 17 Dust port              |
| 8 Depth adjustment knob | 18 Anti-kickback knob     |
| 9 Depth scale           | 19 Speed wheel            |
| 10 Blade                |                           |



**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:** 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

- Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

#### 2) Electrical Safety

- 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.
- 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.

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

- 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.
- 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.
- 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.
- b) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
  - c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws, or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
  - d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

#### 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 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.
- 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.

#### 5) Battery Tool Use and Care

- a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

#### 6) 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



**DANGER: 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.

- a) **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- b) **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.
- c) **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.
- d) **Hold power tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.
- e) **When ripping always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
- f) **Always use blades with correct size and shape (diamond versus round) of arbour holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- g) **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:

- Maintain a firm grip with both hands on the saw and position your arms to resist 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 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 minimize 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.
- 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 making a "plunge cut" into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

## Safety Instructions for Plunge-Type Saws

### Guard Function

- Check guard for proper closing before each use. Do not operate the saw if guard does not move freely and enclose the blade instantly. Never clamp or tie the guard with the blade exposed. If**

**saw is accidentally dropped, guard may be bent.** Check to make sure that guard moves freely and does not touch the blade or any other part, in all angles and depths of cut.

- Check the operation and condition of the guard return spring. If the guard and the spring are not operating properly, they must be serviced before use.** Guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- Assure that the base plate of the saw will not shift while performing the "plunge cut" when the blade bevel setting is not at 90°.** Blade shifting sideways will cause binding and likely kickback.
- Always observe that the 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 Safety Instructions for All Saws with Riving Knife

### Riving Knife Function

- Use the appropriate riving knife for the blade being used.** For the riving knife to work, it must be thicker than the body of the blade but thinner than the tooth set of the blade.
- Adjust the riving knife as described in this instruction manual.** Incorrect spacing, positioning and alignment can make the riving knife ineffective in preventing kickback.
- For the riving knife to work, it must be engaged in the workpiece.** The riving knife is ineffective in preventing kickback during short cuts.
- Do not operate the saw if riving knife is bent.** Even a light interference can slow the closing rate of a guard.

## Additional Safety Instructions for Plunge-Type Saws

- **Wear ear protectors.** Exposure to noise can cause hearing loss.
- **Wear a dust mask.** Exposure to dust particles can cause breathing difficulty and possible injury.
- **Do not use blades of larger or smaller diameter than recommended.** For the proper blade rating refer to the technical data. Use only the blades specified in this manual, complying with EN62841-1.
- **Never use abrasive cut-off wheels.**
- **Do not wear gloves with fingers or loose fitting gloves during use.**
- **Overheating the tips can damage the blade and also increase the risk of binding while cutting.**

## Additional Safety Information

**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.

**WARNING:** 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.



**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 with large battery packs will stand upright on the battery pack 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.

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

V .....	volts		..... Class I Construction (grounded)
Hz .....	hertz		
min .....	minutes	.../min .....	per minute
 or DC .....	direct current	BPM .....	beats per minute
		IPM .....	impacts per minute

RPM .....	revolutions per minute	$n_0$ .....	no load speed
sfpm .....	surface feet per minute		..... earthing terminal
SPM .....	strokes per minute		..... safety alert symbol
A .....	amperes		..... visible radiation
W .....	watts		..... wear respiratory protection
 or AC .....	alternating current		..... wear eye protection
 or AC/DC .....	alternating or direct current		..... wear hearing protection
 .....	Class II Construction (double insulated)		..... read all documentation

## BATTERIES AND CHARGERS

The battery pack is not fully charged out of the carton. Before using the battery pack and charger, read the safety instructions below and then follow charging procedures outlined. When ordering replacement battery packs, be sure to include the catalog number and voltage. Your tool uses a DeWALT charger. Be sure to read all safety instructions before using your charger. Consult the chart at the end of this manual for compatibility of chargers and battery packs.

### READ ALL INSTRUCTIONS

## Important Safety Instructions for All Battery Packs

**WARNING: Read all safety warnings and all instructions for the battery pack, charger and power tool. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.**

- **Do not charge or use the battery pack in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Inserting or removing the battery pack from the charger may ignite the dust or fumes.
  - **NEVER force the battery pack into the charger. DO NOT modify the battery pack in any way to fit into a non-compatible charger as battery pack may rupture causing serious personal injury.** Consult the chart at the end of this manual for compatibility of batteries and chargers.
  - Charge the battery packs only in designated DeWALT chargers.
  - **DO NOT splash or immerse in water or other liquids.**
  - **Do not store or use the tool and battery pack in locations where the temperature may reach or exceed 104 °F (40 °C) (such as outside sheds or metal buildings in summer).** For best life store battery packs in a cool, dry location.
- NOTE: Do not store the battery packs in a tool with the trigger switch locked on. Never tape the trigger switch in the ON position.**
- **Do not incinerate the battery pack even if it is severely damaged or is completely worn out.** The



battery pack can explode in a fire. Toxic fumes and materials are created when lithium ion battery packs are burned.

- **If battery contents come into contact with the skin, immediately wash area with mild soap and water.** If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.
- **Contents of opened battery cells may cause respiratory irritation.** Provide fresh air. If symptoms persist, seek medical attention.

**WARNING:** Burn hazard. Battery liquid may be flammable if exposed to spark or flame.

**WARNING:** Fire hazard. Never attempt to open the battery pack for any reason. If the battery pack case is cracked or damaged, do not insert into the charger. Do not crush, drop or damage the battery pack. Do not use a battery pack or charger that has received a sharp blow, been dropped, run over or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on). Damaged battery packs should be returned to the service center for recycling.

## Transportation

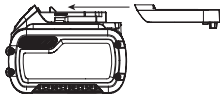
**WARNING:** Fire hazard. Do not store or carry the battery pack so that metal objects can contact exposed battery terminals. For example, do not place the battery pack in aprons, pockets, tool boxes, product kit boxes, drawers, etc., with loose nails, screws, keys, etc. **Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials such as keys, coins, hand tools and the like.** The US Department of Transportation Hazardous Material Regulations (HMR) actually prohibit transporting batteries in commerce or on airplanes in carry-on baggage UNLESS they are properly protected from short circuits. So when transporting individual battery packs, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.

## Shipping the DeWALT FLEXVOLT™ Battery

The DeWALT FLEXVOLT™ battery has two modes: **Use** and **Shipping**.

**Use Mode:** When the FLEXVOLT™ battery stands alone or is in a DeWALT 20V Max\* product, it will operate as a 20V Max\* battery. When the FLEXVOLT™ battery is in a 60V Max\* or a 120V Max\* (two 60V Max\* batteries) product, it will operate as a 60V Max\* battery.

**Shipping Mode:** When the cap is attached to the FLEXVOLT™ battery, the battery is in Shipping Mode.



Strings of cells are electrically disconnected within the pack resulting in three batteries with a lower Watt hour (Wh) rating as compared to one battery with a higher Watt hour rating. This increased quantity of three batteries with the lower Watt hour rating

can exempt the pack from certain shipping regulations that are imposed upon the higher Watt hour batteries.

The battery label indicates two Watt hour ratings (see example). Depending on how the battery is shipped, the appropriate Watt hour rating must be used to determine the applicable shipping requirements. If utilizing the shipping cap, the pack will be considered 3 batteries at the Watt hour rating indicated for "Shipping". If shipping without the cap or in a tool, the pack will be considered one battery at the Watt hour rating indicated next to "Use".

Example of Use and Shipping Label Marking

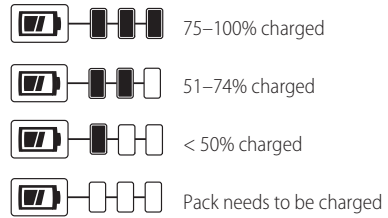
**USE: 120 Wh Shipping: 3 x 40 Wh**

For example, Shipping Wh rating might indicate 3 x 40 Wh, meaning 3 batteries of 40 Watt hours each. The Use Wh rating might indicate 120 Wh (1 battery implied).

## Fuel Gauge Battery Packs (Fig. B)

Some DeWALT battery packs include a fuel gauge which consists of three green LED lights that indicate the level of charge remaining in the battery pack.

The fuel gauge is an indication of approximate levels of charge remaining in the battery pack according to the following indicators:



To actuate the fuel gauge, press and hold the fuel gauge button. A combination of the three green LED lights will illuminate designating the level of charge left. When the level of charge in the battery is below the usable limit, the fuel gauge will not illuminate and the battery will need to be recharged.

Fig. B



**NOTE:** The fuel gauge is only an indication of the charge left on the battery pack. It does not indicate tool functionality and is subject to variation based on product components, temperature and end-user application.

## The RBRC® Seal

The RBRC® (Rechargeable Battery Recycling Corporation) Seal on the nickel cadmium, nickel metal hydride or lithium-ion batteries (or battery packs) indicates that the costs to recycle these batteries (or battery packs) at the end of their useful life have already been paid by DeWALT. In some areas, it is illegal to place


spent nickel cadmium, nickel metal hydride or lithium-ion batteries in the trash or municipal solid waste stream and the Call 2 Recycle® program provides an environmentally conscious alternative.

Call 2 Recycle, Inc., in cooperation with DeWALT and other battery users, has established the program in the United States and Canada to facilitate the collection of spent nickel cadmium, nickel metal hydride or lithium-ion batteries.

Minimum Gauge for Cord Sets

Volts	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)	
Ampere Rating		American Wire Gauge			
More Than	Not More Than				
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Recommended	


## Important Safety Instructions for All Battery Chargers


 **WARNING: Read all safety warnings and all instructions for the battery pack, charger and power tool. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.**

- **DO NOT attempt to charge the battery pack with any chargers other than the ones in this manual.** The charger and battery pack are specifically designed to work together.
- **These chargers are not intended for any uses other than charging DeWALT rechargeable batteries.** Any other uses may result in risk of fire, electric shock or electrocution.
- **Do not expose the charger to rain or snow.**
- **Pull by the plug rather than the cord when disconnecting the charger.** This will reduce the risk of damage to the electric plug and cord.
- **Make sure that the cord is located so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.**
- **Do not use an extension cord unless it is absolutely necessary.** Use of improper extension cord could result in risk of fire, electric shock or electrocution.
- **When operating a charger outdoors, always provide a dry location and use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **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. In doubt, use the next heavier gauge. The lower the gauge number, the heavier the cord.

- **Do not place any object on top of the charger or place the charger on a soft surface that might block the ventilation slots and result in excessive internal heat.** Place the charger in a position away from any heat source. The charger is ventilated through slots in the top and the bottom of the housing.
- **Do not operate the charger with a damaged cord or plug.**
- **Do not operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way.** Take it to an authorized service center.
- **Do not disassemble the charger; take it to an authorized service center when service or repair is required.** Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- **Disconnect the charger from the outlet before attempting any cleaning. This will reduce the risk of electric shock.** Removing the battery pack will not reduce this risk.
- **NEVER attempt to connect 2 chargers together.**
- **The charger is designed to operate on standard 120V household electrical power. Do not attempt to use it on any other voltage.** This does not apply to the vehicular charger.

 **WARNING: Shock hazard.** Do not allow any liquid to get inside the charger. Electric shock may result.

 **WARNING: Burn hazard.** Do not submerge the battery pack in any liquid or allow any liquid to enter the battery pack. Never attempt to open the battery pack for any reason. If the plastic housing of the battery pack breaks or cracks, return to a service center for recycling.

 **CAUTION: Burn hazard.** To reduce the risk of injury, charge only DeWALT rechargeable battery packs. Other types of batteries may overheat and burst resulting in personal injury and property damage.

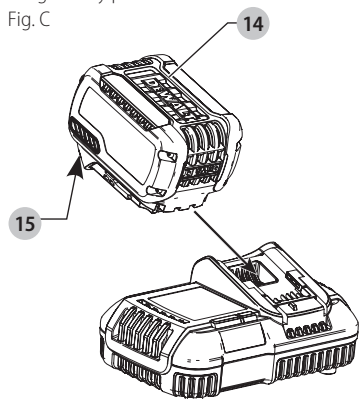
**NOTICE:** Under certain conditions, with the charger plugged into the power supply, the charger can be shorted by foreign material. Foreign materials of a conductive nature, such as, but not limited to, grinding dust, metal chips, steel wool, aluminum foil or any buildup of metallic particles should be kept away from the charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug the charger before attempting to clean.



## Charging a Battery (Fig. C)

1. Plug the charger into an appropriate outlet before inserting battery pack.

Fig. C



2. Insert the battery pack **14** into the charger, making sure the battery pack is fully seated in the charger. The red (charging) light will blink continuously indicating that the charging process has started.
3. The completion of charge will be indicated by the red light remaining ON continuously. The battery pack is fully charged and may be used at this time or left in the charger. To remove the battery pack from the charger, push the battery release button **15** on the battery pack.

**NOTE:** To ensure maximum performance and life of lithium-ion battery packs, charge the battery pack fully before first use.

## Charger Operation

Refer to the indicators below for the charge status of the battery pack.

DCB101		
	Charging	— — — — —
	Fully Charged	—————
	Hot/Cold Pack Delay	— • — • — •
	Problem Pack or Charger	• • • • • • • •
DCB107, DCB112, DCB113, DCB115, DCB118, DCB132		
	Charging	— — — — —
	Fully Charged	—————
	Hot/Cold Pack Delay*	— — — — —   —————

### \*DCB107, DCB112, DCB113, DCB115, DCB118, DCB132:

The red light will continue to blink, but a yellow indicator light will be illuminated during this operation. Once the battery pack has reached an appropriate temperature, the yellow light will turn off and the charger will resume the charging procedure.

The compatible charger(s) will not charge a faulty battery pack. The charger will indicate faulty battery pack by refusing to light or by displaying a problem pack or charger blink pattern.

**NOTE:** This could also mean a problem with a charger. If the charger indicates a problem, take the charger and battery pack to be tested at an authorized service center.

## Hot/Cold Pack Delay

When the charger detects a battery pack that is too hot or too cold, it automatically starts a Hot/Cold Pack Delay, suspending charging until the battery pack has reached an appropriate temperature. The charger then automatically switches to the pack charging mode. This feature ensures maximum battery pack life.

A cold battery pack will charge at a slower rate than a warm battery pack. The battery pack will charge at that slower rate throughout the entire charging cycle and will not return to maximum charge rate even if the battery pack warms.

The DCB118 charger is equipped with an internal fan designed to cool the battery pack. The fan will turn on automatically when the battery pack needs to be cooled. Never operate the charger if the fan does not operate properly or if ventilation slots are blocked. Do not permit foreign objects to enter the interior of the charger.

## Electronic Protection System

Li-Ion tools are designed with an Electronic Protection System that will protect the battery pack against overloading, overheating or deep discharge.

The tool will automatically turn off if the Electronic Protection System engages. If this occurs, place the lithium-ion battery pack on the charger until it is fully charged.

## Wall Mounting

### DCB107, DCB112, DCB113, DCB115, DCB118, DCB132

These chargers are designed to be wall mountable or to sit upright on a table or work surface. If wall mounting, locate the charger within reach of an electrical outlet, and away from a corner or other obstructions which may impede air flow. Use the back of the charger as a template for the location of the mounting screws on the wall. Mount the charger securely using drywall screws (purchased separately) at least 1" (25.4 mm) long, with a screw head diameter of 0.28–0.35" (7–9 mm), screwed into wood to an optimal depth leaving approximately 7/32" (5.5 mm) of the screw exposed. Align the slots on the back of the charger with the exposed screws and fully engage them in the slots.

## Charger Cleaning Instructions

**⚠ WARNING:** Shock hazard. Disconnect the charger from the AC outlet before cleaning. Dirt and grease may be removed from the exterior of the charger using a cloth or soft non-metallic brush. Do not use water or any cleaning solutions.

## Important Charging Notes

1. Longest life and best performance can be obtained if the battery pack is charged when the air temperature is between 65 °F and 75 °F (18 ° – 24 °C). DO NOT charge

the battery pack in an air temperature below +40 °F (+4.5 °C), or above +104 °F (+40 °C). This is important and will prevent serious damage to the battery pack.

- The charger and battery pack may become warm to the touch while charging. This is a normal condition, and does not indicate a problem. To facilitate the cooling of the battery pack after use, avoid placing the charger or battery pack in a warm environment such as in a metal shed or an uninsulated trailer.
- If the battery pack does not charge properly:
  - Check operation of receptacle by plugging in a lamp or other appliance;
  - Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights;
  - Move the charger and battery pack to a location where the surrounding air temperature is approximately 65 °F – 75 °F (18 ° – 24 °C);
  - If charging problems persist, take the tool, battery pack and charger to your local service center.
- The battery pack should be recharged when it fails to produce sufficient power on jobs which were easily done previously. **DO NOT CONTINUE** to use under these conditions. Follow the charging procedure. You may also charge a partially used pack whenever you desire with no adverse effect on the battery pack.
- Foreign materials of a conductive nature such as, but not limited to, grinding dust, metal chips, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from charger cavities. Always unplug the charger from the power supply when there is no battery pack in the cavity. Unplug the charger before attempting to clean.
- Do not freeze or immerse the charger in water or any other liquid.

## Storage Recommendations

- The best storage place is one that is cool and dry, away from direct sunlight and excess heat or cold.
- For long storage, it is recommended to store a fully charged battery pack in a cool dry place out of the charger for optimal results.

**NOTE:** Battery packs should not be stored completely depleted of charge. The battery pack will need to be recharged before use.

## SAVE THESE INSTRUCTIONS FOR FUTURE USE

## COMPONENTS (FIG. A1, A2)

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

Refer to Figure A at the beginning of this manual for a complete list of components.

## INTENDED USE

The DCS520 60V track saw is designed for professional sawing of wood products.

**DO NOT** use under wet conditions or in presence of flammable liquids or gases.

This heavy-duty track 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.

## ASSEMBLY AND ADJUSTMENTS



**WARNING:** To reduce the risk of serious personal injury, turn unit off and remove the battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

## Bevel Adjustment (Fig. A1)

The bevel angle can be adjusted between 0° and 47°.

- Loosen the bevel adjustment knobs **7**.
- Set the bevel angle by tilting the saw shoe **4** until the mark indicates the desired angle on the bevel scale **6**.
- Tighten the bevel adjustment knobs **7**.

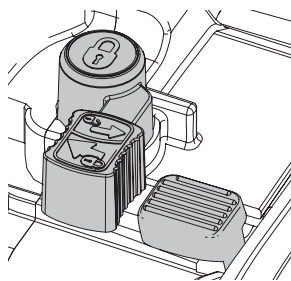
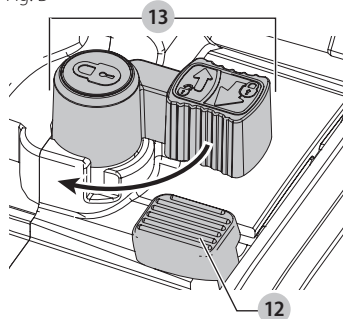
## Changing the Saw Blade (Fig. A1, D, E)

**NOTE:** It is not necessary to remove the outer blade cover **23** to change the blade.

- Remove the battery pack.
- Press the spindle lock button **12**.
- Press the track saw down until it stops (blade change position).
- Turn the spindle lock lever **13** clockwise until it stops.
- Hold the spindle lock lever **13** down and using the hex wrench found in the front handle **11**, rotate the blade until the lock position is found.

**NOTE:** The blade **10** is now locked and cannot be turned by hand.

Fig. D

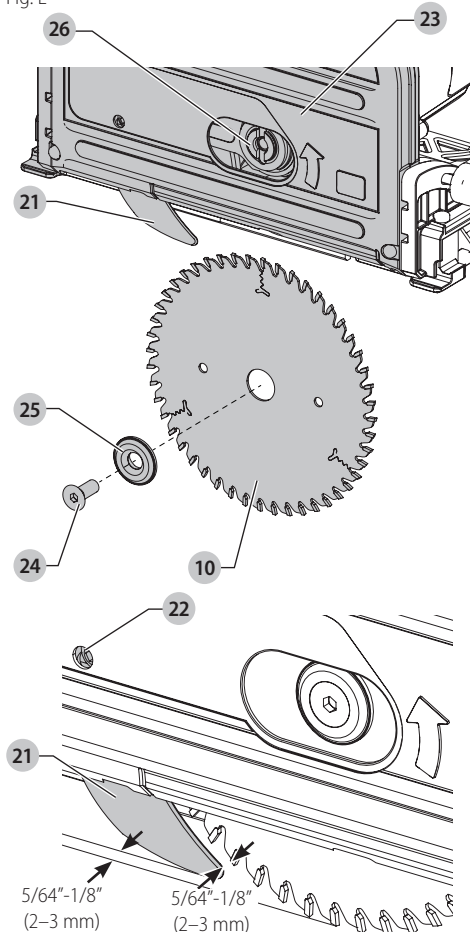


- Use the hex wrench to turn the blade clamping screw **24** counter-clockwise to remove.
- Remove the outer flange **25** and used blade **10**. Place the new blade on the inner flange **26**.
- Replace the outer flange **25** and blade clamping screw **24**. Turn the screw clockwise by hand.

**NOTE:** The direction of rotation of the saw blade and the rotation of the track saw **MUST** be the same.

- Tighten the blade clamping screw firmly using the hex wrench.
- Release and turn the spindle lock lever **13** counter-clockwise until it stops.
- Move the track saw back to top position.
- Push the plunge trigger **1** forward, to take the saw out of blade change mode.

Fig. E



### Adjusting the Riving Knife (Fig. A1, D, E)

For the correct adjustment of the riving knife **21**, refer to Figure E. Adjust the clearance of the riving knife after changing the saw blade or whenever necessary.

- Follow **Changing the Saw Blade** steps 1–5.

- Loosen the riving knife adjustment screw **22** with a hex wrench and set the riving knife as shown in Figure E.
- Tighten the riving knife adjustment screw **22**.
- Turn the spindle lock lever **13** counter-clockwise until it stops.
- Move the track saw back to top position.
- Push the plunge trigger **1** forward, to take the saw out of blade change mode.

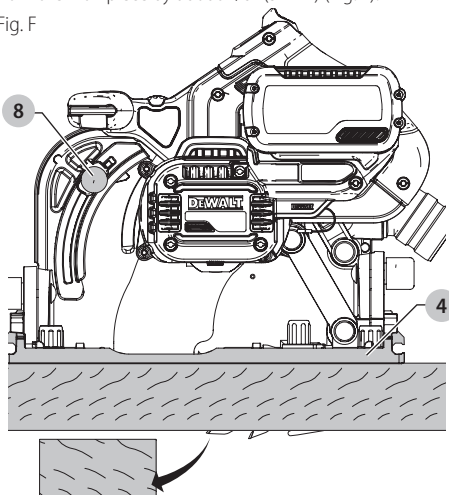
### Depth of Cut Adjustment (Fig. F)

The cutting depth can be set at 0–2.3" (0–59 mm) without guide rail attached; with the guide rail attached: 0–2.2" (0–55 mm).

- Loosen the depth adjustment knob **8** and move the pointer to obtain the correct depth of cut.
- Tighten the depth adjustment knob **8**.

**NOTE:** For optimal results, allow the saw blade to protrude from the workpiece by about 1/8" (3 mm) (Fig. F).

Fig. F



### OPERATION

**WARNING:** To reduce the risk of serious personal injury, turn unit off and remove the battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

### Installing and Removing the Battery Pack (Fig. A1)

**NOTE:** For best results, make sure your battery pack is fully charged.

To install the battery pack **14** into the tool handle, align the battery pack with the rails inside the tool's handle and slide it into the handle until the battery pack is firmly seated in the tool and ensure that it does not disengage.

To remove the battery pack from the tool, press the release button **15** and firmly pull the battery pack out of the tool handle. Insert it into the charger as described in the charger section of this manual.

## Proper Hand Position (Fig. G)

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

**WARNING:** 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 front handle **11**, with the other hand on the main handle **3**.

Fig. G

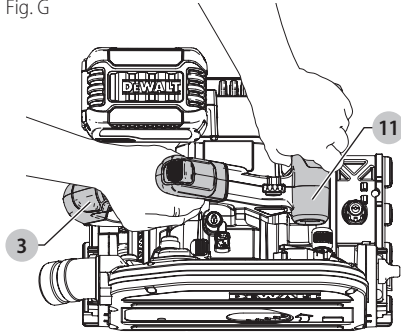
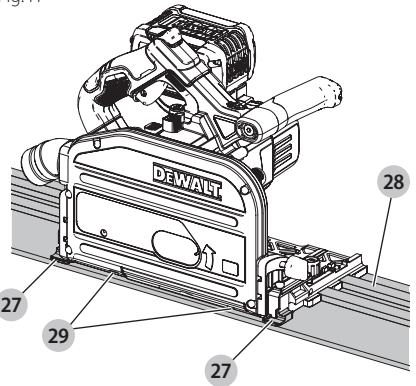


Fig. H



## Instructions for Use

**WARNING:** Always observe the safety instructions and applicable regulations.

**WARNING:** To reduce the risk of serious personal injury, turn tool off and disconnect battery pack before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

## Switching On and Off (Fig. A1)

Press the on/off switch **2** to turn the track saw on.

## Guiding the Tool (Fig. A1, G, H)

**WARNING:**

- ALWAYS** secure the workpiece in such a manner that it cannot move while sawing.
  - ALWAYS** push the machine forward. **NEVER** pull the machine backward towards you.
  - ALWAYS** use the track saw with both hands. Put one hand on the main handle **3** and the second hand on the front handle **11** as shown in Figure G.
  - ALWAYS** use the clamp to hold the rail to the workpiece.
- Use proper hand position to guide the saw properly.
  - The cutting indicator **27** displays the cutting line for 0° and 47° cuts (without guide rail).
  - The blade position indicator **29** shows the blade position for full plunge.
  - For optimum results, clamp the workpiece bottom up.

## Cutting

- Place the machine with the front part of the saw shoe **4** on the workpiece.
- Push the plunge trigger **1** forward, then press the on/off switch **2** to turn the saw on.
- Press the saw down to set cutting depth and push it forward in the cutting direction.

## Plunge Cuts (Fig. A2)

**WARNING:** To avoid kickbacks, the following instructions **MUST** be observed when plunge cutting:

- Place the machine onto the guide rail **28** and release the anti-kickback knob **18** by turning it counter-clockwise.
- Turn the machine on and slowly press the saw down onto the set cutting depth and push forward in the cutting direction. The cutting indicators **27** display the absolute front and the absolute rear cutting points of the saw blade (dia. 6.5" [165 mm]) at maximum cutting depth and using the guide rail.
- If kickback happened during the plunge cut, turn the anti-kickback knob **18** counter-clockwise to release it from the rail.
- When you have finished the plunge cut, turn the anti-kickback knob **18** clockwise into the lock position.

## Blades

**WARNING:** 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.

**WARNING:** Do not cut metal, masonry, glass, masonry-type planking, cement board, tile or plastic with this saw.

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.

## Blade Selection (Fig. I)

**WARNING:** To minimize the risk of kickback and to ensure proper cutting, the blade selected must be appropriate for the thickness of the riving knife provided.

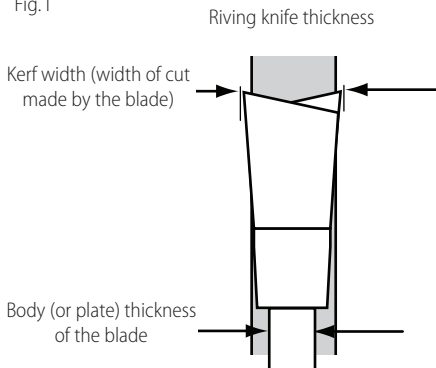
The blade supplied with this circular saw is the correct size for the riving knife supplied with the saw.

If a different blade is used, check the blade body (plate) thickness and the blade kerf (cutting) width marked on the blade or on the blade packaging. The riving knife thickness must be greater than the body thickness and less than the kerf width as shown in Figure I.

The riving knife provided with this saw is marked with its thickness: .067" (1.7 mm). This riving knife should only be used for blades with a 0.07" (1.8 mm) minimum kerf width and 0.063" (1.6 mm) maximum body thickness.

Your DeWALT track saw is designed for use with 6–1/2" (165 mm) diameter blades that have a 0.79" (20 mm) diameter bore. Blades must be rated for 6000 rpm operation (or higher). **DO NOT** use any abrasive wheels.

Fig. I



A combination blade is furnished with your saw and is an excellent blade for all general ripping and crosscutting operations. Use a fine-tooth blade for cutting plywood.

**WARNING:** VISUALLY EXAMINE CARBIDE BLADES BEFORE USE. REPLACE IF DAMAGED.

## Guide Rail System (Fig. A1, J)

The guide rails **28**, which are available in different lengths, allow for precise, clean cuts and simultaneously protect the workpiece surface against damage.

In conjunction with additional accessories, exact angled cuts, mitre cuts and fitting work can be completed with the guide rail system.

Securing the workpiece with clamps ensures a secure hold and safe working.

The guide clearance of the track saw must be very small for best cutting results and can be set with the two rail adjustment knobs **5**.

1. Release the screw inside the rail adjustment knobs **5** to adjust the clearance.
2. Adjust the knob until saw locks on rail.
3. Rotate knob back until saw slides easily.
4. Hold the rail adjustment knob in position and lock the screw again.

**NOTE:** ALWAYS readjust the system for use with other rails.

## Anti-Splinter Guard (Fig. J, K)

The guide rail **28** is equipped with an anti-splinter guard **30**, which has to be trimmed before the first use.

The anti-splinter guard **30** is situated on each edge of the guide rail (**28**, Fig. J). The purpose of this anti-splinter guard is to provide the user with a visible blade cut line while reducing the chipping that occurs along the workpiece cut edge during cutting.

**IMPORTANT:** ALWAYS read and follow the **Guide Rail System** instructions before cutting the splinterguard!

1. Set the speed of the track saw to level 7.
2. Place the guide rail **28** on a scrap piece of wood. Use a clamp to ensure that the guide rail is securely attached to the workpiece. This will ensure accuracy.
3. Set the track saw on 13/64" (5 mm) cut depth.
4. Place the saw on the rear end of the guide rail.
5. Turn the saw on, press it down to the set cutting depth and cut the anti-splinter guard **30** along the full length in one continuous operation. The edge of the anti-splinter guard now corresponds exactly to the cutting edge of the blade.

To trim the anti-splinter guard on the other side of the guide rail, remove the saw from the rail and rotate the rail 180°. Repeat steps 1 through 4.

**NOTE:** If desired, the splinter guard can be bevelled to 45°, then repeat steps 1 through 4. This allows one side of the rail for cutting parallel cuts and the other side of the rail is tuned in for 45° bevel cuts (Fig. K).

**NOTE:** If the anti-splinter guard is trimmed for parallel cutting on both sides, then when the unit is bevelled, the blade will not run true to the edge of the anti-splinter guard. This is because the pivot point of the unit bevel is not stationary and the blade moves out when the unit is bevelled.

**WARNING:** To reduce the risk of injury, ALWAYS secure the guide rail with a clamp.

Fig. J

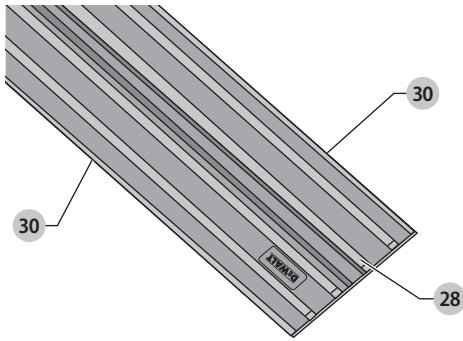


Fig. K

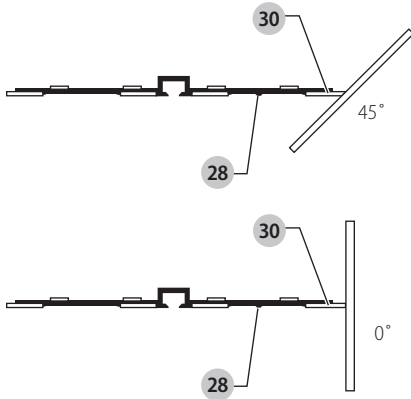
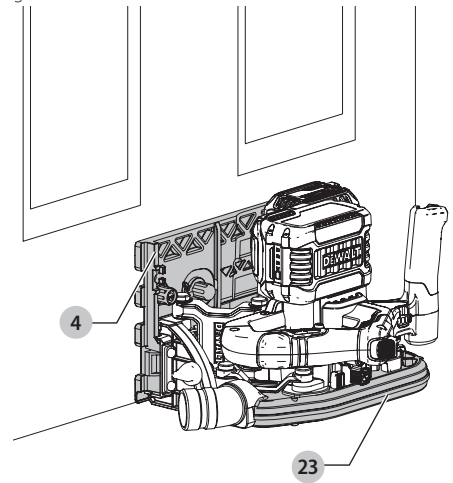


Fig. L



## Speed Adjustment (Fig. A2)

The speed can be regulated between 2500 and 4200 rpm using the speed wheel **19**. This enables you to optimize the cutting speed to suit the material. Refer to the following chart for type of material and speed range.

Type of Material to be Cut	Speed Range
Solid wood (hard, soft)	3–7
Chipboards	4–7
Laminated wood, blockboards, veneered and coated boards	2–7
Paper and carton	1–3


## Door Cutting (Fig. L)

1. Place the track saw with the outer guard **23** on a clean, flat floor.
2. Press the shoe **4** with the front side on the door against the adjusted depth stop.





## Dust Extraction (Fig. A2)

Your tool is fitted with a dust port **17**.

 **WARNING: DO NOT** direct sawdust toward yourself or others. **DO NOT** insert foreign objects into the exhaust opening.

 **WARNING: ALWAYS** connect the track saw to a dust extractor!

 **WARNING: ALWAYS** use a dust extraction device designed in accordance with the relevant regulations regarding dust emission.


 **WARNING:** Static charge may occur if an anti-static suction hose is not used.

A universal 1-1/4" dust extraction hose can be connected to the dust port **17**. Check for a tight connection before use.


## Dust Duct Cleaning


Depending on your cutting environment, saw dust can clog the dust duct and may prevent dust from flowing away from the cutting area properly. With the battery removed, low pressure air or a large diameter dowel rod can be used to clear the dust out of the dust duct.

## MAINTENANCE

 **WARNING: To reduce the risk of serious personal injury, turn unit off and remove the battery pack before making any adjustments or removing/installing attachments or accessories.** An accidental start-up can cause injury.


## Cleaning

 **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.

 **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.

## Accessories

 **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.