DEWALT®

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DWE4377

Fig. A
图A

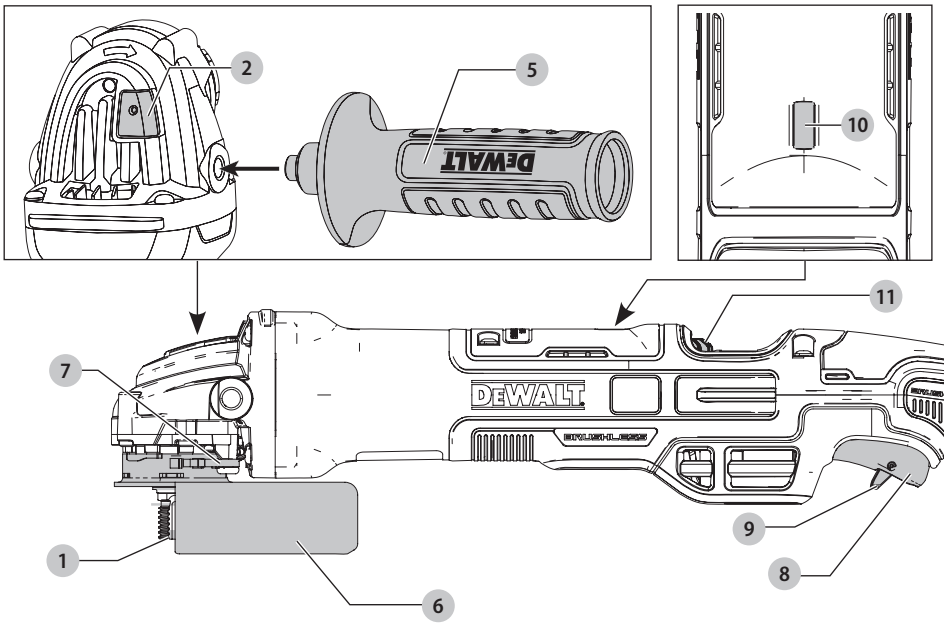

Fig. B
图B

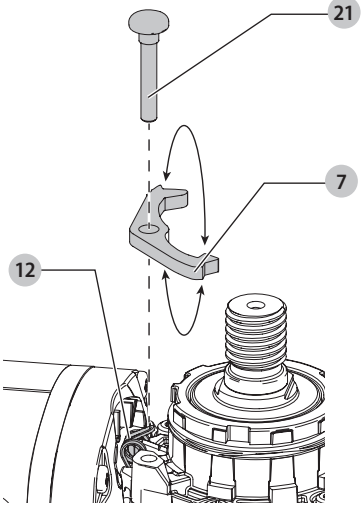

Fig. C
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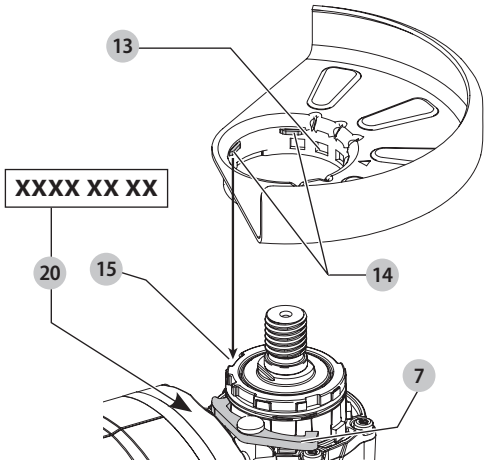

Fig. D
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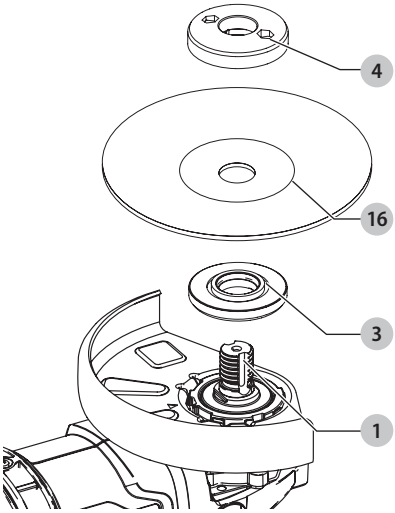

Fig. E
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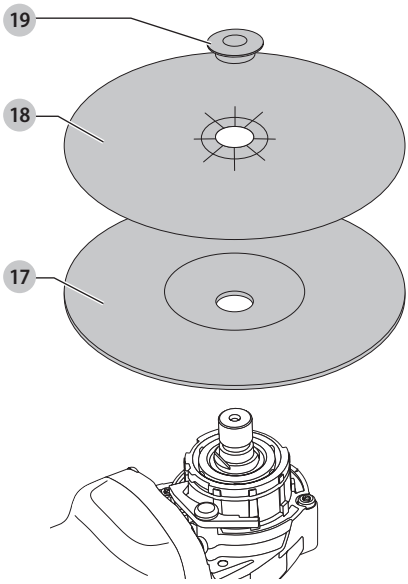
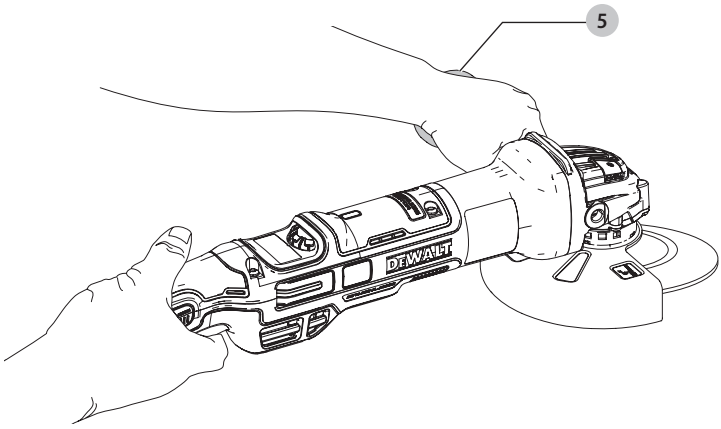


Fig. F
图F



SMALL ANGLE GRINDER
DWE4377

Congratulations!

You have chosen a DEWALT tool. Years of experience, thorough product development and innovation make DEWALT one of the most reliable partners for professional power tool users.

Technical Data

		DWE4377
Voltage	V_{AC}	220V
Power output	W	1700
Rated no load speed	min^{-1}	2200–10500
Grinding Wheel diameter	mm	125
Grinding Wheel thickness (max)	mm	6.4
Cutting off wheel diameter	mm	125
Cutting off wheel thickness (max)	mm	3
Wire wheel diameter	mm	115
Wire wheel thickness (max)	mm	13
Spindle diameter		M14
Spindle length	mm	18.5
Weight	kg	2.53

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

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.

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****.*

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

Denotes risk of electric shock.

Denotes risk of fire.

General Power Tool Safety Warnings

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

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

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

1) Work area safety

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

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

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

2) Electrical safety

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

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

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

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

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

f) ***If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.*** *Use of an RCD reduces the risk of electric shock.*

3) Personal safety

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

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

c) ***Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery pack, picking up or carrying the tool.*** *Carrying power tools with your finger on the switch or energising 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 jewellery. Keep your hair, clothing and gloves away from moving parts.*** *Loose clothes, jewellery or long hair can be caught in moving parts.*

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

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

4) Power tool use and care

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

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

c) ***Disconnect the plug from the power source and/or 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.*

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

5) Service

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

SAFETY INSTRUCTIONS FOR ALL OPERATIONS

Safety Warnings Common for Grinding, Sanding, Wire Brushing, or Cutting-Off Operations:

a) ***This power tool is intended to function as a grinder, sander, wire brush or cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.*** *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*

b) ***Operations such as polishing are not recommended to be performed with this power tool.*** *Operations for which the power tool was not designed may create a hazard and cause personal injury.*

c) ***Do not convert this power tool to operate in a way which is not specifically designed and specified by the tool manufacturer.*** *Such a conversion may result in a loss of control and cause serious personal injury.*

d) ***Do not use accessories which are not specifically designed and specified by the tool manufacturer.*** *Just because the accessory can be attached to your power tool, it does not assure safe operation.*

e) ***The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.*** *Accessories running faster than their rated speed can break and fly apart.*

f) ***The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.*** *Incorrectly sized accessories can not be adequately guarded or controlled.*

g) ***The dimensions of the accessory mounting must fit the dimensions of the mounting hardware of the power tool.*** *Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.*

h) ***Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheel for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of***

the rotating accessory and run the power tool at maximum no-load speed for one minute. *Damaged accessories will normally break apart during this test time.*

i) ***Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.*** *The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.*

j) ***Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.*** *Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.*

k) ***Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.*** *Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electrical shock.*

l) ***Position the cord clear of the spinning accessory.*** *If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.*

m) ***Never lay the power tool down until the accessory has come to a complete stop.*** *The spinning accessory may grab the surface and pull the power tool out of your control.*

n) ***Do not run the power tool while carrying it at your side.*** *Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.*

o) ***Regularly clean the power tool's air vents.*** *The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.*

p) ***Do not operate the power tool near flammable materials.*** *Sparks could ignite these materials.*

q) ***Do not use accessories that require liquid coolants.*** *Using water or other liquid coolants may result in electrocution or shock.*

FURTHER SAFETY INSTRUCTIONS FOR ALL OPERATIONS

Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

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

a) ***Maintain a firm grip with both hands on the power tool and position your body and arms to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start up.*** *The operator can control torque reaction or kickback forces, if proper precautions are taken.*

b) ***Never place your hand near the rotating accessory.*** *Accessory may kickback over your hand.*

c) ***Do not position your body in the area where power tool will move if kickback occurs.*** *Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.*

d) ***Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.*** *Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.*

e) ***Do not attach a saw chain woodcarving blade, segmented diamond wheel with a peripheral gap greater than 10 mm or toothed saw blade.*** *Such blades create frequent kickback and loss of control.*

Safety Warnings Specific for Grinding and Cutting-Off Operations

a) ***Use only wheel types that are specified for your power tool and the specific guard designed for the selected wheel.*** *Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.*

b) ***The grinding surface of centre depressed wheels must be mounted below the plane of the guard lip.*** *An improperly mounted wheel that projects through the plane of the guard lip cannot be adequately protected.*

c) ***The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.*** *The guard helps to protect the operator from broken wheel fragments, accidental contact with wheel and sparks that could ignite clothing.*

d) ***Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.*** *Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.*

e) ***Always use undamaged wheel flanges that are of correct size and shape for your selected wheel.***

Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. *Flanges for cut-off wheels may be different from grinding wheel flanges.*

f) ***Do not use worn down wheels from larger power tools.*** *A wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.*

g) ***When using dual purpose wheels always use the correct guard for the application being performed.*** *Failure to use the correct guard may not provide the desired level of guarding, which could lead to serious injury.*

Additional Safety Warnings Specific for Cutting-Off Operations

a) ***Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.*** *Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.*

b) ***Do not position your body in line with and behind the rotating wheel.*** *When the wheel, at the point of operations, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.*

c) ***When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.*** *Investigate and take corrective action to eliminate the cause of wheel binding.*

d) ***Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.*** *The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.*

e) ***Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight.*** *Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.*

f) ***Use extra caution when making a "pocket cut" into existing walls or other blind areas.*** *The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.*

g) ***Do not attempt to do curved cutting.*** *Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage, which can lead to serious injury.*

Additional Safety Instructions for Sanding Operations

a) ***Use proper sized sanding disk paper. Follow manufacturers recommendations, when selecting sanding paper.*** *Larger sanding paper extending too far beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.*

Additional Safety Instructions for Wire Brushing Operations

a) ***Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.*** *The wire bristles can easily penetrate light clothing and/or skin.*

b) ***If the use of a guard is specified for wire brushing, do not allow any interference of the wire wheel or brush with the guard.*** *Wire wheel or brush may expand in diameter due to work and centrifugal forces.*

Additional Safety Rules for Grinders

a) ***Do not use Type 11 (flaring cup) wheels on this tool.*** *Using inappropriate accessories can result in injury.*

b) ***Always use side handle. Tighten the handle securely.*** *The side handle should always be used to maintain control of the tool at all times.*

c) ***When using segmented diamond wheels, use only diamond wheels with a peripheral gap not greater than 10 mm and negative rake angle (refer to* Additional Information for Guards and Accessories Chart.*)***

Residual Risks

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These are:

- *Impairment of hearing.*
- *Risk of personal injury due to flying particles.*
- *Risk of burns due to accessories becoming hot during operation.*
- *Risk of personal injury due to prolonged use.*

Electrical Safety

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.

Your DEWALT tool is double insulated in accordance with IEC62841; therefore no earth wire is required.

WARNING: *We recommend the use of a residual current device with a residual current rating of 30mA or less.*

If the supply cord is damaged, it must be replaced by a specially prepared cord available through the DEWALT service organisation.

Using an Extension Cable

If an extension cable is required, use an approved 3–core extension cable suitable for the power input of this tool (see ***Technical Data***). The minimum conductor size is 1.5 mm^2; the maximum length is 30 m.

When using a cable reel, always unwind the cable completely.

Package Contents

The package contains:

1 Angle grinder
1 Type B (grinding) Guard
1 Side handle
1 Backing flange
1 Threaded clamp nut
1 Hex key
1 Instruction manual

- *Check for damage to the tool, parts or accessories which may have occurred during transport.*
- *Take the time to thoroughly read and understand this manual prior to operation.*

Markings on Tool

The following pictograms are shown on the tool:


Read instruction manual before use.


Wear ear protection.


Wear eye protection.


Electronic Brake.

Date Code Position (Fig. C)

The production date code **20** consists of a 4-digit year followed by a 2-digit week and is extended by a 2-digit factory code.

Description (Fig. A)

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

1 Spindle
2 Spindle lock button
3 Unthreaded backing flange
4 Threaded clamp nut
5 Side handle
6 Guard
7 Guard release lever
8 Trigger switch
9 Lock off lever
10 LED Indicator
11 Variable speed dial

Intended Use

Your heavy-duty small angle grinder has been designed for professional grinding, sanding, wire brushing and cutting applications.

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

Your heavy-duty angle grinder is a professional power tool.

DO NOT let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

DANGER: *Do not use for wood cutting or woodcarving. Do not use toothed blades of any kind. Serious injury can result.*

- **Young children and the infirm.** This appliance is not intended for use by young children or infirm persons without supervision.
- This product is not intended for use by persons (including children) suffering from diminished physical, sensory or mental abilities; lack of experience, knowledge or skills unless they are supervised by a person responsible for their safety. Children should never be left alone with this product.

Features

E-switch Protection

The ON/OFF switch has a no-volt release function. In the event of a power outage or other unexpected shut down, the switch will need to be cycled (turned on and off) to restart tool.

E-Clutch

This unit is equipped with an E-Clutch (Electronic Clutch), which in the event of a stall or wheel pinch, the unit will be shut off to reduce the reaction torque to the user. The switch needs to be cycled (turned on and off) to restart tool.

Brake

When the trigger switch is released the motor immediately turns off and electronically brakes, stopping the accessory quickly to prevent accidental contact and improve productivity.

Kickback Brake

When a pinch, stall, or bind-up event is sensed the electronic brake engages with maximum force to quickly stop the wheel, reduce the movement of the grinder, and shut the grinder off. The switch needs to be cycled (turned on and off) to restart the tool.

Constant Clutch

When overloaded or stalled the motor torque is reduced to allow the user to maintain control of the tool. If load is reduced the torque and RPM will increase. If the tool is stalled for an extended amount of time it will shut-off and require the switch to cycle to restart. This feature mimics a mechanical clutch without the associated component wear.

Electronic Soft Start

This feature limits the initial start up momentum, allowing the speed to build up gradually over a 1 second period.

LED Indicator (Fig. A)

The LED indicator **10** will remain lit green during normal activity, or blink in a pattern of red light to alert you a tool protection feature has been activated. Refer to the ***LED Guide*** at the back of this manual for explanations of blink patterns.

ASSEMBLY AND ADJUSTMENTS

WARNING: To reduce the risk of serious personal injury, turn tool off and disconnect tool from power

source before making any adjustments or removing/ installing attachments or accessories. *Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.*

Attaching Side Handle (Fig. A)

WARNING: *Before using the tool, check that the handle is tightened securely.*

Screw the side handle **5** tightly into one of the holes on either side of the gear case. The side handle should always be used to maintain control of the tool at all times.

Guards

CAUTION: Guards must be used with all grinding wheels, cutting wheels, sanding flap discs, wire brushes, and wire wheels. *Refer to Figure A to see guards provided with the unit. Some applications may require purchasing the correct guard from your local dealer or authorized service centre.*

CAUTION: *When using a Type A (cut-off) wheel guard for facial grinding, the wheel guard may interfere with the workpiece causing poor control.*

CAUTION: *When using a Type B (grinding) wheel guard for cutting-off operations with bonded abrasive wheels, there is an increased risk of exposure to emitted sparks and particles, as well as exposure to wheel fragments in the event of wheel burst.*

CAUTION: *When using a Type A (cut-off), Type B (grinding) wheel guard for cutting-off and facial operations in concrete or masonry, there is an increased risk of exposure to dust and loss of control resulting in kickback.*

CAUTION: When using a Type A (cut-off), Type B (grinding) wheel guard with a wheel-type wire brush with a thickness greater than the maximum thickness as specified in ***Technical Data***, the wires may catch on the guard leading to breaking of wires.

NOTE: Edge grinding and cutting can be performed with Type 27 wheels designed and specified for this purpose; 6 mm thick wheels are designed for surface grinding while thinner Type 27 wheels need to be examined for the manufacturer's label to see if they can be used for surface grinding or only edge grinding/cutting. A Type A (cut-off) wheel guard must be used for any wheel where surface grinding is forbidden. A Type A (cut-off) (previously called type 1/41) wheel guard must be used for any dual purpose (combined grinding and cutting-off abrasive) wheels. Cutting can also be performed by using a Type 1/41 wheel and a Type A cut-off wheel guard previously called Type 1/41 guard.

NOTE: See the ***Accessory and Guard Applications Chart*** to select the proper guard / accessory combination.

Adjusting and Mounting Guard (Fig. B, C)

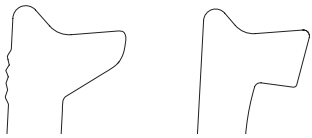
CAUTION: *Turn unit off and unplug the tool before making any adjustments or removing or installing attachments or accessories.*

CAUTION: *BEFORE operating the tool, identify which guard adjustment option your tool is set to.*

Adjustment Options

For guard adjustment, the guard release lever **7** engages one of the alignment holes **13** on the guard collar using a ratcheting feature. Your grinder offers two options for this adjustment.

- **One-touch™:** In this position the engaging face is slanted and will ride over to the next alignment hole when guard is rotated in a clockwise direction (spindle facing user) but self-locks in the anti-clockwise direction.
- **Two-touch™:** In this position the engaging face is straight and squared off. It will NOT ride over to the next alignment hole unless guard release lever is pressed and held while simultaneously rotating the guard in either a clockwise or anti-clockwise direction (spindle facing user).



One-Touch™ Two-Touch™

Setting Guard Adjustment Options

To adjust the guard release lever **7** for desired adjustment option:

1. Remove screw **21** using a T20 bit.
2. Remove the guard release lever taking note of the spring position. Choose the end of the lever for the desired adjustment option. One-touch™ will use the slanted end of the guard release lever **7** to engage the alignment holes **13** on the guard collar. Two-touch™ will use the squared end to engage the alignment holes **13** on the guard collar.
3. Replace the lever, positioning the chosen end under the spring **12**. Ensure the lever is in proper contact with the spring.
4. Replace screw and torque to 2.0-3.0 Nm. Ensure proper installation with spring return function by depressing guard release lever **7**.

Mounting Guard (Fig. C)

CAUTION: *Prior to mounting guard, ensure the screw, lever, and spring are fitted correctly before mounting the guard.*

1. With the spindle facing the operator, press and hold the guard release lever **7**.
2. Align the lugs **14** on the guard with the slots **15** on the gear case.
3. Push the guard down until the guard lugs engage and rotate them in the groove on the gear case hub. Release the guard release lever.
4. To position the guard:
   One-touch™: Rotate the guard clockwise into the desired working position. Press and hold the guard release lever **7** to rotate the guard in the anti-clockwise direction.
   Two-touch™: Press and hold the guard release lever **7**.

Rotate the guard clockwise or anti-clockwise into the desired working position.

NOTE: The guard body should be positioned between the spindle and the operator to provide maximum operator protection.

The guard release lever should snap into one of the alignment holes **13** on the guard collar. This ensures that the guard is secure.

5. To remove the guard, follow steps 1–3 of these instructions in reverse.

Flanges and Wheels

Mounting Non-Hubbed Wheels (Fig. D)

WARNING: *Failure to properly seat the flanges and/or wheel could result in serious injury (or damage to the tool or wheel).*

CAUTION: *Included flanges must be used with Type 27 grinding wheels and Type 41/42 cutting wheels. See the* **Grinding and Cutting Accessory Chart** *for more information.*

WARNING: *A closed, two-sided cutting wheel guard is required when using abrasive cutting wheels or diamond coated cutting wheels.*

WARNING: *Use of a damaged flange or guard or failure to use proper flange and guard can result in injury due to wheel breakage and wheel contact. See the* **Accessory and Guard Applications Chart** *for more information.*

1. Place the tool on a table, guard up.
2. Install the unthreaded backing flange **3** on spindle **1** with the raised centre (pilot) facing the wheel.
3. Place wheel **16** against the backing flange, centring the wheel on the raised centre (pilot) of the backing flange.
4. While depressing the spindle lock button and with the hex depressions facing away from the wheel, thread the threaded clamp nut **4** on spindle so that the lugs engage the two slots in the spindle.
5. While depressing the spindle lock button, tighten the threaded clamp nut **4** using a hex wrench.
6. To remove the wheel, depress the spindle lock button and loosen the threaded locking flange.

Mounting Sanding Backing Pads (Fig. A, E)

NOTE: Use of a guard with sanding discs that use backing pads, often called fiber resin discs, is not required. Since a guard is not required for these accessories, the guard may or may not fit correctly if used.

WARNING: *Failure to properly seat the flange/ clamp nut/ wheel could result in serious injury (or damage to the tool or wheel).*

WARNING: *Proper guard must be reinstalled for grinding wheel, cutting wheel, sanding flap disc, wire brush or wire wheel applications after sanding applications are complete.*

1. Place or appropriately thread backing pad **17** on the spindle.
2. Place the sanding disc **18** on the backing pad **17**.
3. While depressing spindle lock **2**, thread clamp nut **19** on spindle, piloting the raised hub on the clamp nut into the centre of sanding disc and backing pad.
4. Tighten the clamp nut by hand. Then depress the spindle lock button while turning the sanding disc until the sanding disc and clamp nut are snug.
5. To remove the wheel, grasp and turn the backing pad and sanding pad while depressing the spindle lock button.

Mounting Wire Cup Brushes and Wire Wheels (Fig. A)

WARNING: *Failure to properly seat the flange/ clamp nut/ wheel could result in serious injury (or damage to the tool or wheel).*

CAUTION: To reduce the risk of personal injury, wear work gloves when handling wire brushes and wheels. *They can become sharp.*

CAUTION: To reduce the risk of damage to the tool, wheel or brush must not touch guard when mounted or while in use. *Undetectable damage could occur to the accessory, causing wires to fragment from accessory wheel or cup.*

Wire cup brushes or wire wheels install directly on the threaded spindle without the use of flanges. Use only wire brushes or wheels provided with a M14 threaded hub. These accessories are available at extra cost from your local dealer or authorised service centre.

1. Place the tool on a table, guard up.
2. Thread the wheel on the spindle by hand.
3. Depress spindle lock button **2** and use a wrench on the hub of the wire wheel or brush to tighten the wheel.
4. To remove the wheel, reverse the above procedure.

NOTICE: *To reduce the risk of damage to the tool, properly seat the wheel hub before turning the tool on.*

Prior to Operation

- Install the guard and appropriate disc or wheel. Do not use excessively worn discs or wheels.
- Be sure the inner and outer flange are mounted correctly. Follow the instructions given in the ***Accessory and Guard Applications Chart***.
- Make sure the disc or wheel rotates in the direction of the arrows on the accessory and the tool.
- Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

OPERATION

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 tool from power source before making any adjustments or removing/ installing attachments or accessories. *Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.*

WARNING:

- *Ensure all materials to be ground or cut are secured in place.*
- *Secure and support the workpiece. Use clamps or a vise to hold and support the workpiece to a stable platform. It is important to clamp and support the workpiece securely to prevent movement of the workpiece and loss of control. Movement of the workpiece or loss of control may create a hazard and cause personal injury.*
- ***Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.*** *Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.*
- *Always wear regular working gloves while operating this tool.*
- *The gear becomes very hot during use.*
- *Apply only a gentle pressure to the tool. Do not exert side pressure on the disc.*
- *Always install the guard and appropriate disc or wheel. Do not use excessively worn disc or wheel.*
- *Be sure the inner and outer flange are mounted correctly.*
- *Make sure the disc or wheel rotates in the direction of the arrows on the accessory and the tool.*
- *Avoid overloading. Should the tool become hot, let it run a few minutes under no load condition to cool the accessory. Do not touch accessories before they have cooled. The discs become very hot during use.*
- *Never work with the grinding cup without a suitable protection guard in place.*
- *Do not use the power tool with a cut-off stand.*
- *Never use blotters together with bonded abrasive products.*
- *Be aware, the wheel continues to rotate after the tool is switched off.*

Proper Hand Position (Fig. F)

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 side handle **5**, with the other hand on the body of the tool, as shown in Figure F.

Variable Speed Dial (Fig. A)

WARNING: *Regardless of the speed setting, the rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.*

The variable speed dial offers added tool control and enables the tool to be used at optimum conditions to suit the accessory and material.

- Turn the variable speed dial **11** to the desired level. Turn the dial upward for higher speed and downwards for lower speed.

Trigger Switch and Lock-off Lever (Fig. A)

WARNING: *Before using the tool, check that the side handle is tightened securely.*

CAUTION: *Hold the side handle and body of the tool firmly to maintain control of the tool at start up and during use and until the wheel or accessory stops rotating. Make sure the wheel has come to a complete stop before laying the tool down.*

1. To turn the tool on, push the lock-off lever **9** toward the back of the tool, then depress the trigger switch **8**. The tool will run while the switch is depressed.
2. Turn the tool off by releasing the trigger switch.

WARNING: *Allow the tool to reach full speed before touching tool to the work surface. Lift the tool from the work surface before turning the tool off.*

Spindle Lock (Fig. A)

The spindle lock button **2** is provided to prevent the spindle from rotating when installing or removing wheels. Operate the spindle lock only when the tool is turned off, unplugged from the power supply, and has come to a complete stop.

NOTICE: *To reduce the risk of damage to the tool, do not engage the spindle lock while the tool is operating. Damage to the tool will result and attached accessory may spin off possibly resulting in injury.*

To engage the lock, depress the spindle lock button and rotate the spindle until you are unable to rotate the spindle further.

Surface Grinding, Sanding and Wire Brushing

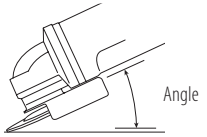
CAUTION: Always use the correct guard per the instructions in this manual.

WARNING: Metal dust build-up. *Extensive use of flap discs in metal applications can result in the increased potential for electric shock. To reduce this risk, insert an RCD before use and clean the ventilation slots daily by blowing dry compressed air into the ventilation slots in accordance with the below maintenance instructions.*

To perform work on the surface of a workpiece:

1. Allow the tool to reach full speed before touching the tool to the work surface.

2. Apply minimum pressure to the work surface, allowing the tool to operate at high speed. Material removal rate is greatest when the tool operates at high speed.



3. Maintain an appropriate angle between the tool and work surface. Refer to the chart according to particular function.

Function	Angle
Grinding	20˚-30˚
Sanding with Flap Disc	5˚-10˚
Sanding with Backing Pad	5˚-15˚
Wire Brushing	5˚-10˚

4. Maintain contact between the edge of the wheel and the work surface.
   - If grinding, sanding with flap discs or wire brushing move the tool continuously in a forward and back motion to avoid creating gouges in the work surface.
   - If sanding with a backing pad, move the tool constantly in a straight line to prevent burning and swirling of work surface.

NOTE: Allowing the tool to rest on the work surface without moving will damage the work piece.

5. Remove the tool from work surface before turning tool off. Allow the tool to stop rotating before laying it down.

CAUTION: *Use extra care when working over an edge, as a sudden sharp movement of grinder may be experienced.*

Precautions To Take When Working on a Painted Workpiece

1. Sanding or wire brushing of lead based paint is NOT RECOMMENDED due to the difficulty of controlling the contaminated dust. The greatest danger of lead poisoning is to children and pregnant women.
2. Since it is difficult to identify whether or not a paint contains lead without a chemical analysis, we recommend the following precautions when sanding any paint:

Personal Safety

1. No children or pregnant women should enter the work area where the paint sanding or wire brushing is being done until all clean up is completed.
2. A dust mask or respirator should be worn by all persons entering the work area. The filter should be replaced daily or whenever the wearer has difficulty breathing.
   NOTE: Only those dust masks suitable for working with lead paint dust and fumes should be used. Ordinary painting masks do not offer this protection. See your local hardware dealer for the proper N.I.O.S.H. approved mask.
3. NO EATING, DRINKING or SMOKING should be done in the work area to prevent ingesting contaminated paint particles. Workers should wash and clean up BEFORE eating, drinking or smoking. Articles of food, drink, or smoking should not be left in the work area where dust would settle on them.

Environmental Safety

1. Paint should be removed in such a manner as to minimize the amount of dust generated.
2. Areas where paint removal is occurring should be sealed with plastic sheeting of 4 mils thickness.
3. Sanding should be done in a manner to reduce tracking of paint dust outside the work area.

Cleaning and Disposal

1. All surfaces in the work area should be vacuumed and thoroughly cleaned daily for the duration of the sanding project. Vacuum filter bags should be changed frequently.
2. Plastic drop cloths should be gathered up and disposed of along with any dust chips or other removal debris. They should be placed in sealed refuse receptacles and disposed of through regular trash pick-up procedures. During clean up, children and pregnant women should be kept away from the immediate work area.
3. All toys, washable furniture and utensils used by children should be washed thoroughly before being used again.

Edge Grinding and Cutting

WARNING: *Do not use edge grinding/cutting wheels for surface grinding applications because these wheels are not designed for side pressures encountered with surface grinding. Wheel breakage and injury may result.*

CAUTION: *Wheels used for edge grinding and cutting may break or kick back if they bend or twist while the tool is being used. In all edge grinding/cutting operations, the open side of the guard must be positioned away from the operator.*

NOTICE: *Edge grinding/cutting with a Type 27 wheel must be limited to shallow cutting and notching—less than 13 mm in depth when the wheel is new. Reduce the depth of cutting/notching equal to the reduction of the wheel radius as it wears down. Refer to the* **Accessory and Guard Applications Chart** *for more information. Edge grinding/cutting with a Type 41 wheel requires usage of a Type A guard.*

1. Allow the tool to reach full speed before touching the tool to the work surface.
2. Apply minimum pressure to the work surface, allowing the tool to operate at high speed. Grinding/cutting rate is greatest when the tool operates at high speed.
3. Position yourself so that the open-underside of the wheel is facing away from you.
4. Once a cut is begun and a notch is established in the workpiece, do not change the angle of the cut. Changing the angle will cause the wheel to bend and may cause wheel breakage. Edge grinding wheels are not designed to withstand side pressures caused by bending.
5. Remove the tool from the work surface before turning the tool off. Allow the tool to stop rotating before laying it down.

Metal Applications

When using the tool in metal applications, make sure that a residual current device (RCD) has been inserted to avoid residual risks caused by metal swarf.

If the power supply is shut off by the RCD, take the tool to an authorised DEWALT repair agent.

WARNING: *In extreme working conditions, conductive dust can accumulate inside the machine housing when working with metal. This can result in the protective insulation in the machine becoming degraded with a potential risk of an electrical shock.*

To avoid build-up of metal swarf inside the machine, we recommend to clear the ventilation slots on a daily basis. Refer to ***Maintenance***.

Cutting Metal

For cutting with bonded abrasives, always use the guard Type A.

When cutting, work with moderate feed, adapted to the material being cut. Do not exert pressure onto the cutting disc, tilt or oscillate the machine.

Do not reduce the speed of running down cutting discs by applying sideward pressure.

The machine must always work in an upgrinding motion. Otherwise, the danger exists of it being pushed uncontrolled out of the cut.

When cutting profiles and square bar, it is best to start at the smallest cross section.

Rough Grinding

Never use a cutting disc for roughing.
Always use the guard Type B.

The best roughing results are achieved when setting the machine at an angle of 30° to 40°. Move the machine back and forth with moderate pressure. In this manner, the workpiece will not become too hot, does not discolour and no grooves are formed.

Cutting Stone

The machine shall be used only for dry cutting.

For cutting stone, it is best to use a diamond cutting disc. Operate the machine only with additional dust protection mask.

Working Advice

Exercise caution when cutting slots in structural walls.

Slots in structural walls are subject to the country-specific regulations. These regulations are to be observed under all circumstances. Before beginning work, consult the responsible structural engineer, architect or the construction supervisor.

MAINTENANCE

Your DEWALT power tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.

WARNING: To reduce the risk of serious personal injury, turn tool off and disconnect tool from power source before making any adjustments or removing/installing attachments or accessories. *Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.*

Lubrication

Your power tool requires no additional lubrication.

Cleaning

WARNING: *Electrical shock and mechanical hazard. Disconnect the electrical appliance from the power source before cleaning.*

WARNING: *To ensure safe and efficient operation, always keep the electrical appliance and the ventilation slots clean.*

WARNING: *Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the 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.*

Ventilation slots can be cleaned using a dry, soft non-metallic brush and/or a suitable vacuum cleaner. Do not use water or any cleaning solutions. Wear approved eye protection and an approved dust mask.

Optional 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.*

WARNING: *Do not use a bonded abrasive wheel that is past its expiration (EXP) date as marked near center of wheel (if provided). Expired wheels are more likely to burst and cause serious injury. Store bonded abrasive wheels in dry location without temperature or humidity extremes. Destroy expired or damaged wheels so they cannot be used.*

WARNING: *Accessories must be rated for at least the speed recommended on the tool warning label. Wheels and other accessories running over their rated accessory speed may fly apart and cause injury. Threaded accessories must have a M14 hub. Every unthreaded accessory must have a 22 mm arbor hole. If it does not, it may have been designed for a circular saw. Use only the accessories shown in the* **Accessory and Guard Applications Chart** *of this manual. Accessory ratings must always be above tool speed as shown on tool nameplate.*

WARNING: *Handle and store all abrasive wheels carefully to prevent damage from thermal shock, heat, mechanical damage, etc. Store in a dry protected area free from high humidity, freezing temperatures or extreme temperature changes.*

Consult your dealer for further information on the appropriate accessories.

The capacity of this tool is 125 mm diameter x 6 mm thick grinding or cutting wheels. It is important to choose the

correct guards, backing pads and flanges to use with grinder accessories. See the **Accessory and Guard Applications Chart** *for information on choosing the correct accessories.*

Protecting the Environment

Separate collection. Products and batteries marked with this symbol must not be disposed of with normal household waste.

Products and batteries contain materials that can be recovered or recycled reducing the demand for raw materials. Please recycle electrical products and batteries according to local provisions. Further information is available at **www.2helpU.com**.

LED Guide

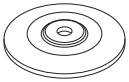
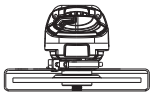
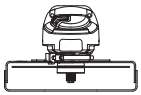
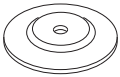
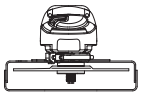
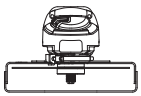
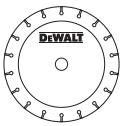
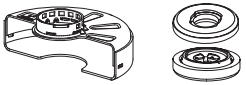
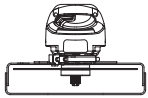
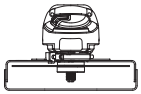
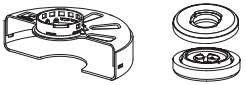
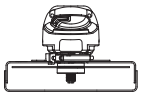
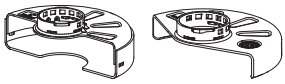
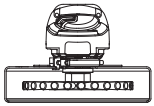
The section provides a list of possible LED blink patterns, their causes and corrective solutions. The user or maintenance personnel can perform some corrective actions, and others may require the assistance of qualified DEWALT technician or your dealer.

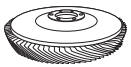
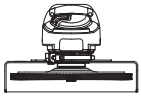
	No-Volt Protection
Problem	**Solution**
The switch is in the on position and power has been applied. The unit stayed off.	Cycle the switch to restart.
	Kickback Brake
Problem	**Solution**
A pinch has been sensed by the tool and the kickback brake has activated.	Inspect accessory for damage from pinch and replace if necessary. Adjust work piece and tool position as necessary and cycle switch to restart.
	Thermal Protection
Problem	**Solution**
The unit has shut down to prevent permanent damage due to overheating.	Ensure intake and exhaust vents are not blocked by user's hands, clothing or debris during use. Reduce frequency of feathering the tool on/off and cycle switch to restart and/or unplug the unit and then plug it back in.
	Stall/Overload Protection
Problem	**Solution**
The unit has been in a stalled condition for an extended period and it has shut down.	Remove load from tool and cycle the switch to restart.
	Problem Power Line
Problem	**Solution**
The unit is running on a poor quality power source like a low quality generator. This power may damage the tool.	Try another power source, reduce extension cord length or reduce equipment used on the power source at one time.

After Service and Repair

DEWALT service centers are staffed with trained personnel to provide customers with efficient and reliable product service. We do not take any responsibility when you have repaired in unauthorized service center. You can refer to the leaflet of CONTACT CENTER LOCATOR in product package and contact us through hotline, website or social media to find the nearest DEWALT service center around you.

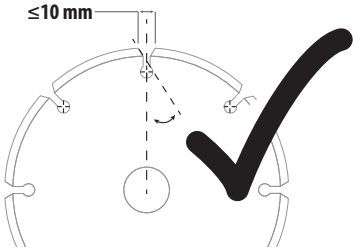
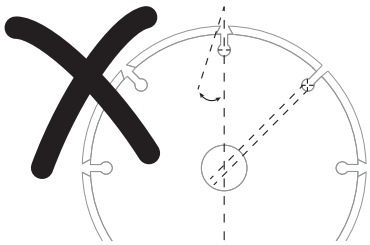
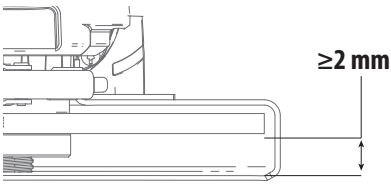
DWE4377 Accessory and Guard Applications

	Accessory Type	Accessory	Guard	Assembly for Reference
Surface Grinding	Wheel Type 27		 Type B (Grinding)	
Cutting Off	Wheel Type 41 (1A) (metal)		 Type A (Closed cut off)	
	Wheel Type 42 (27A) (metal)		 Type A (Closed cut off)	
	Wheel Type 41 (1A) (masonry/concrete)		 Type A (Closed cut off)	
	Diamond Cutting Wheel (masonry/concrete)		 Type A (Closed cut off) [4] For acceptable diamond wheel geometry reference ***Additional Information for Guards and Accessories*** chart.	 [4]
	Abrasive Wheels For Materials Other Than Metal Or Masonry/Concrete		 Type A (Closed cut off)	
Dual Purpose (combined cut-off and grinding)	Dual Purpose Abrasive Wheel		 Type A (Closed cut off)	
Wire Brushing	Wheel-Type Wire Brush		 Type A or Type B (Closed cut off or Grinding)	
	Cup Type Wire Brush		Guard not required	

	Accessory Type	Accessory	Guard	Assembly for Reference
Sanding	Flap Disc (Type 27 / Type 29)		 Type B (Grinding)	
	Flexible Abrasive (e.g. sandpaper) (supported by a flexible backing pad)		 Guard not required	

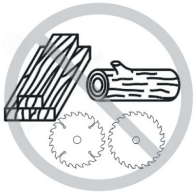
Type A (Type 41) guards are intended for use with Type 41 (1A) cutting wheels and Type 42 (27A) wheels marked for cutting only. Grinding with wheels other than Type 27 and Type 29 require different accessory guards. Always use the smallest proper guard possible that does not contact the accessory.

NOTE: Type A (cut-off) and Type B (grinding) wheel guards were previously referred to as Type 1/41 and Type 27 wheel guards.

Additional Information for Guards and Accessories	
When using segmented diamond wheels, use only diamond wheels with a peripheral gap not greater than 10 mm and negative rake angle.	
DO NOT USE **segmented diamond wheels with a peripheral gap greater than 10 mm and/or a positive rake angle.**	
For all grinding, sanding, and wheel type wire brushing accessories, the lowest portion of the accessory must be contained within the guard enclosure with 2 mm or greater clearance to the bottom lip of guard.	

Guidelines for Guards and Accessories for DWE4377		
Non-approved Wheels for DWE4377	Type 11 / T11	

DANGER: *Do not use for wood cutting or woodcarving. Do not use toothed blades of any kind. Serious injury can result.*



小型角磨机
DWE4377

恭喜!

感谢您选购DEWALT工具。凭借多年的产品开发和创新经验，DEWALT已经成为专业电动工具用户最可靠的合作伙伴之一。

技术数据

		DWE4377
电压	V_{AC}	220V
输出功率	W	1700
额定空载速度	min^{-1}	2200–10500
砂轮直径	mm	125
砂轮厚度(最大值)	mm	6.4
切割轮直径	mm	125
切割轮厚度(最大值)	mm	3
钢丝轮直径	mm	115
钢丝轮厚度(最大值)	mm	13
主轴直径		M14
主轴长度	mm	18.5
重量	kg	2.53

***警告:**为降低伤害风险，请阅读使用手册。*

定义:安全指南

下列定义描述了各标志术语的严重程度。请仔细阅读本手册，并注意这些标志。

***危险:**表示存在紧急危险情况，如果不加以避免，**将**导致**死亡或重伤**。*

***警告:**表示存在潜在危险情况，如果不加以避免，**可能**导致**死亡或重伤**。*

***小心:**表示存在潜在危险情况，如果不加以避免，**可能**导致**轻度或中度伤害**。*

***注意:**表示存在不涉及人身伤害的情况，如果不加以避免，**可能**导致**财产损失**。*

表示存在触电风险。

表示存在火灾风险。

电动工具通用安全警告

***警告!阅读随电动工具提供的所有安全警告、说明、图示和规定。**不遵照以下所列说明会导致电击、着火和/或严重伤害。*

保存所有警告和说明书以备查阅

警告中的术语"电动工具"指市电驱动(有线)电动工具或电池驱动(无线)电动工具。

1) 工作场地的安全

a) ***保持工作场地清洁和明亮。**杂乱和黑暗的场地会引发事故。*

b) ***不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。**电动工具产生的火花会点燃粉尘或气体。*

c) ***操作电动工具时，远离儿童和旁观者。**注意力不集中会使你失去对工具的控制。*

2) 电气安全

a) ***电动工具插头必须与插座相配。绝不能以任何方式改装插头。需接地的电动工具不能使用任何转换插头。**未经改装的插头和相配的插座将降低电击风险。*

b) ***避免人体接触接地表面，如管道、散热片和冰箱。**如果你身体接触接地表面会增加电击风险。*

c) ***不得将电动工具暴露在雨中或潮湿环境中。**水进入电动工具将增加电击风险。*

d) ***不得滥用软线。绝不能用软线搬运、拉动电动工具或拔出其插头。使软线远离热源、油、锐边或运动部件。**受损或缠绕的软线会增加电击风险。*

e) ***当在户外使用电动工具时，使用适合户外使用的延长线。**适合户外使用的电线将降低电击风险。*

f) ***如果无法避免在潮湿环境下操作电动工具，应使用带有剩余电流装置(RCD)保护的电源。**RCD的使用可降低电击风险。*

3) 人身安全

a) ***保持警觉，当操作电动工具时关注所从事的操作并保持清醒。当你感到疲倦，或在有药物、酒精或治疗反应时，不要操作电动工具。**在操作电动工具时瞬间的疏忽会导致严重人身伤害。*

b) ***使用个人防护装置。始终佩戴护目镜。**防护装置，诸如适当条件下使用防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。*

c) ***防止意外起动。在连接电源和/或电池盒、拿起或搬运工具前确保开关处于关断位置。**手指放在开关上搬运工具或开关处于接通时通电会导致危险。*

d) ***在电动工具接通之前，拿掉所有调节钥匙或扳手。**遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。*

e) ***手不要过分伸展。时刻注意立足点和身体平衡。**这样能在意外情况下能更好地控制住电动工具。*

f) ***着装适当。不要穿宽松衣服或佩戴饰品。让你的头发和衣服远离运动部件。**宽松衣服、佩饰或长发可能会卷入运动部件。*

g) ***如果提供了与排屑、集尘设备连接用的装置，要确保其连接完好且使用得当。**使用集尘装置可降低尘屑引起的危险。*

h) ***不要因为频繁使用工具而产生的熟悉感而掉以轻心，忽视工具的安全准则。***某个粗心的动作可能在瞬间导致严重的伤害。

4) 电动工具使用和注意事项

a) ***不要勉强使用电动工具，根据用途使用合适的电动工具。***选用合适的按照额定值设计的电动工具会使你工作更有效、更安全。

b) ***如果开关不能接通或关断电源，则不能使用该电动工具。***不能通过开关来控制的电动工具是危险的且必须进行修理。

c) ***在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和／或卸下电池包（如可拆卸）。***这种防护性的安全措施降低了电动工具意外起动的风险。

d) ***将闲置不用的电动工具贮存在儿童所及范围之外，并且不允许不熟悉电动工具和不了解这些说明的人操作电动工具。***电动工具在未经培训的使用者手中是危险的。

e) ***维护电动工具及其附件。检查运动部件是否调整到位或卡住，检查零件破损情况和影响电动工具运行的其他状况。如有损坏，应在使用前修理好电动工具。***许多事故是由维护不良的电动工具引发的。

f) ***保持切削刀具锋利和清洁。***维护良好地有锋利切削刃的刀具不易卡住而且容易控制。

g) ***按照使用说明书，并考虑作业条件和要进行的作业来选择电动工具、附件和工具的刀头等。***将电动工具用于那些与其用途不符的操作可能会导致危险情况。

h) ***保持手柄和握持表面干燥、清洁，不得沾有油脂。***在意外的情况下，湿滑的手柄不能保证握持的安全和对工具的控制。

5) 维修

a) ***由专业维修人员使用相同的备件维修电动工具。***这将保证所维修的电动工具的安全。

所有操作的使用说明

a) ***该电动工具是用于实现砂砂轮机、砂光机、钢丝刷或切断工具功能的。阅读随该电动工具提供的所有安全警告、说明、图解和规定。***不了解以下所列所有说明将导致电击、着火和/或严重伤害。

b) ***不推荐用该电动工具进行诸如抛光等操作。***电动工具不按指定的功能去操作，可能会发生危险和引起人身伤害。

c) ***不使用非工具制造商推荐和设计的附件。***否则该附件可能被装到你的电动工具上，而它不能保证安全操作。

d) ***附件的额定速度必须至少等于电动工具上标出的最大速度。***附件以比其额定速度大的速度运转会发生爆裂和飞溅。

e) ***附件的外径和厚度必须在电动工具额定范围之内。***不正确的附件尺寸不能得到充分防护或控制。

f) ***砂轮、法兰盘、靠背垫或任何其他附件的轴孔尺寸必须适合于安装到电动工具的主轴上。***带轴孔的、与电动工具安装件不配的附件将会失稳、过度振动并会引起失控。

g) ***不要使用损坏的附件。在每次使用前要检查附件，例如砂轮是否有碎片和裂缝，靠背垫是否有的裂缝、撕裂或过度磨损，钢丝刷是否松动或金属丝是否断裂。如果电动工具或附件跌落了，检查是否有损坏或安装没有损坏的附件。检查和安装附件后，让自己和旁观者的位置远离旋转附件的平面，并以电动工具最大空载速度运行1 min。***损坏的附件通常在该试验时会碎裂。

h) ***戴上防护用品。根据是用情况，使用面罩、安全护目镜或安全眼镜。适用时，戴上防尘面具、听力保护器、手套和能挡小磨料或工件碎片的工作围裙。***眼防护罩必须挡住各种操作产生的飞屑。防尘面具或口罩必须能过滤操作产生的颗粒。长期暴露在高强度噪声中会引起失聪。

i) ***让旁观者与工作区域保持一安全距离。任何进入工作区域的人必须戴上防护用品。***工件或破损附件的碎片可能会飞出并引起紧靠着操作区域的旁观者的伤害。切割附件触及带电导线会使电动工具外露的金属零件带电，并使操作者触电。

j) ***当在切割附件有可能切割到暗线或自身软线的场所进行操作时，只能通过绝缘握持面来握住电动工具。***切割附件碰到一根带电导线可能会使电动工具的外露金属零件带电并使操作者发生电击危险。

k) ***使软线远离旋转的附件。***如果控制不当，软线可能被切断或缠绕，并使得你的手或手臂可能被卷入旋转附件中。

l) ***直到附件完全停止运动才放下电动工具。***旋转的附件可能会抓住表面并拉动电动工具而让你失去对工具的控制。

m) ***当携带电动工具时不要开动它。***意外地触及旋转附件可能会缠绕你的衣服而使附件伤害身体。

n) ***经常清理电动工具的通风口。***电动机风扇会将灰尘吸进机壳，过多的金属粉末沉积会导致电气危险。

o) ***不要在易燃材料附近操作电动工具。***火星可能会点燃这些材料。

p) ***不要使用需要冷却液的附件。***用水或其他冷却液可能会导致电腐蚀或电击。

对所有操作的进一步安全说明

反弹和相关警告：

反弹是因卡住或缠绕住的旋转砂轮、靠背垫、钢丝刷或其他附件而产生的突然反作用力。卡住或缠绕会引起旋转附件的迅速堵转，随之使失控的电动工具在卡住点产生与附件旋转方向相反的运动。

例如，如果砂轮被工件缠绕或卡住，伸入卡住点的砂轮边缘可能会进入材料表面而引起砂轮爬出或反弹。砂轮可能会飞向或飞离操作者，这取决于砂轮在卡住点的运动方向。在此条件下砂轮也可能碎裂。

反弹是电动工具误用和/或不正确操作工序或条件的结果，可以通过以下给出的适当预防措施得以避免。

a) ***保持紧握电动工具，使你的身体和手臂处于正确状态以抵抗反弹力。如有辅助手柄，则要一直使用，以便最大限度控制住起动时的反弹力或反力矩。****如采取合适的预防措施，操作者就可以控制反力矩或反弹力。*

b) ***绝不能将手靠近旋转附件。****附件可能会反弹碰到手。*

c) ***不要站在发生反弹时电动工具可能移动到的地方。****反弹将在缠绕点驱使工具逆砂轮运动方向运动。*

d) ***当在尖角、锐边等处作业时要特别小心。避免附件的弹跳和缠绕。****尖角、锐边和弹跳具有缠绕旋转附件的趋势并引起反弹的失控。*

e) ***不要附装上锯链、木雕刀片或带齿锯片。****这些锯片会产生频繁的反弹和失控。*

对磨削和砂磨切割操作的专用安全警告

a) ***只使用所推荐的砂轮型号和为选用砂轮专门设计的防护罩。****不是为电动工具设计的砂轮不能充分得到防护，是不安全的。*

b) ***防护罩必须牢固地装在电 动工具上，且放置得最具安全性，只有最小的砂轮部分暴露在操作人面前。****防护罩帮助保护操作者免于受到爆裂砂轮碎片和偶然触及砂轮的危险。*

c) ***砂轮只用作推荐的用途。例如：不要用切割砂轮的侧面进行磨削。****施加到砂轮侧面的力可能会使其碎裂。*

d) ***始终为所选砂轮选用未损坏的、有恰当规格和形状的砂轮法兰盘。****合适的砂轮法兰盘支撑砂轮可以减小砂轮破裂的可能性。切割砂轮的法兰盘可以不同于砂轮法兰盘。*

e) ***要使用从大规格电动工具上用剩的磨损砂轮。****用于大规格电动工具上的砂轮不适于较小规格工具的高速工况并可能会爆裂。*

对砂轮切割操作的附件专用安全警告

a) ***不要“夹”住切割砂轮或施加过大的压力。不要试图做过深的切割。****给砂轮施加过应力增加了砂轮在切割时的负载，容易缠绕或卡住，增加了反弹或砂轮爆裂的可能性。*

b) ***身体不要对着旋转砂轮，也不要站在其后。****当把砂轮从操作者身边的操作点移开时，可能的反弹会使砂轮和电动工具朝你推来。*

c) ***当砂轮被卡住或无论任何原因而中断切割时，关掉电动工具并握住工具不要动，直到砂轮完全停止。决不要试图当砂轮仍然运转时使切割砂轮脱离切割，否则会发生反弹。****调查并采取校正措施以消除砂轮卡住的原因。*

d) ***不能在工件上重新起动切割操作。让砂轮达到全速后再小心地重新进入切割。****如果电动工具在工件上重新起动，砂轮可能会卡住、爬出或反弹。*

e) ***支撑住板材或超大工件可使得砂轮卡住和反弹地危险降到最低限度。****大工件凭借自重而下垂。必须在工件靠近切割线处和砂轮两侧近工件边缘处放置支承。*

f) ***当进行“盲切割”进入墙体或其他盲区时要格外小心。****伸出地砂轮可能会割到煤气罐或水管，电线或由此引起反弹地物体。*

砂光操作的专用安全警告

a) ***当砂光时，不要使用超大砂纸盘。选用砂纸盘时应按照制造商的推荐。****超出砂光垫盘的大砂盘纸有撕裂的危险并且引起缠绕、砂盘的撕裂或反弹。*

钢丝刷操作的专用安全警告

a) ***要意识到即使正常操作时钢丝线也会随刷子甩出。不要对钢丝刷施加过大的负荷而使得钢丝线承受过应力。****钢丝线可能会轻易刺入薄的衣服和/或皮肤内。*

b) ***如果建议钢丝刷使用防护罩，则不允许该防护罩对该钢丝轮或钢丝刷有任何干扰。****钢丝轮和钢丝刷在工作负荷和离心力作用下直径会变大。*

针对研磨机的额外安全规则

a) ***请勿在此工具上使用11型（展口杯）转轮。***
使用不合适的配件会导致人员受伤。

b) ***务必使用侧手柄。拧紧该手柄。***
应始终使用侧手柄来保持对工具的控制。

c) ***使用分段式金刚石转轮时，仅可使用周边间隙不大于10mm且有负倾角的金刚石转轮（请参阅“防护装置和配件图的附加信息”）。***

剩余风险

尽管遵守了相关的安全法规并采用了安全装备，某些剩余风险仍然是无法避免的。这些风险包括：

- *听力损伤。*
- *飞溅颗粒造成的人身伤害风险。*
- *使用时配件发热导致的灼伤风险。*
- *长时间使用引起的人身伤害风险。*

电气安全

电机只适用一种工作电压。请务必检查电源电压是否和铭牌上的电压一致。

DEWALT工具符合IEC62841双重绝缘要求，因此无需使用接地线。

警告：*我们建议使用漏电保护额定电流为30毫安或以下的漏电保护装置。*

如果电源线损坏，必须用DEWALT维修机构提供的专门准备的电源线进行替换。

使用延长线

如需延长电缆，请使用经批准适合本工具电源输入的3芯延长电缆（见***技术数据***）。最小的导线尺寸为1.5mm²；最大长度为30m。

使用电缆卷筒时，请务必拉出所有的电缆。

包装内的物品

包装中包含：

1台 角磨机
1个 B型(磨削)防护罩
1个 侧面手柄
1个 背衬法兰
1个 螺纹夹紧螺母
1个 六角扳手
1本 使用手册

- *检查工具、部件或配件是否在运输过程中损坏。*
- *操作前,请抽空仔细阅读并掌握本手册。*

工具上的标记

工具上印有下列图形:


使用前请阅读使用手册。


请佩戴听力保护器。


请佩戴护目装备。


电子制动器。

日期代码位置(图C)

生产日期代码 **20** 由4位数的年和2位数的周组成,后跟2位数的工厂代码。

说明(图A)

警告:*不得改装本电动工具或其任何部件,否则可能会导致损坏或人身伤害。*

1 主轴
2 主轴锁定按钮
3 无螺纹背衬法兰
4 螺纹夹紧螺母
5 侧手柄
6 防护罩
7 防护罩释放杆
8 触发开关
9 锁闭杆
10 LED指示灯
11 变速调节器

设计用途

重型小型角磨机适用于专业磨削、砂光、钢丝刷和切割应用。

请勿在潮湿环境中,或在存在易燃液体或气体的环境中使用本工具。

本重型角磨机是一种专业电动工具。

请勿让儿童接触本工具。缺乏经验的操作员需要在监督下使用本工具。

危险:*请勿用于木材切割或木雕。请勿使用任何类型的带齿刀片。否则会致人重伤。*

- **儿童和体弱者。**在没有他人监督的情况下,儿童或体弱者不适宜使用本产品。
- 本产品不适合体力、感官或智力不足以及缺乏经验、知识或技能的人员(包括儿童)使用,除非一旁有能为他们的安全负责的监督人员。不得在无人监管的情况下让儿童接触本产品。

特征

电子开关保护

开关具有无电压释放功能。在断电或其他意外停机的情况下,需要循环开关(打开和关闭)才能重新启动工具。

电子离合器

该装置配备有E-Clutch(电子离合器),在发生停转或转轮挤压时,该装置将关闭,以减少对用户的反作用力矩。需要循环开关(打开和关闭)才能重新启动工具。

制动器

松开触发开关后,电机立即关闭并电子制动,使配件迅速停止,以防止意外接触并提高生产率。

回弹制动器

当感应到挤压、停转或捆绑事件时,电子制动器会以最大的力啮合,以快速停止砂轮,减缓角磨机的运动,并关闭角磨机。需要循环开关(打开和关闭)才能重新启动工具。

恒定离合器

当过载或停转时,电机扭矩会降低,以便用户控制工具。如果负载减少,扭矩和转速将增加。如果工具停转时间过长,则会关闭,需要循环开关才能重新启动。该功能可模拟机械离合器,但不会磨损相关部件。

电子软启动

该功能可限制初始启动动力,使速度在1秒钟内逐渐提高。

LED指示灯(图A)

正常活动期间,LED指示灯 **10** 的绿灯会常亮,或以红灯模式闪烁,以提醒您工具保护功能已启动。如需了解闪烁模式,请参阅本手册后面的***LED指南***。

组装与调整

警告:为降低严重的人身伤害风险,在进行任何调整或取出/安装配件或配件之前,请关闭工具并断开工具与电源的连接。*确保触发开关处于关闭位置。意外启动工具可能会造成伤害。*

安装侧手柄(图A)

警告:*使用工具前检查该手柄是否拧紧。*

将侧手柄 **5** 紧紧拧入齿轮箱两侧的其中一个孔中。应始终使用侧手柄来保持对工具的控制。

防护罩

小心:所有磨轮、切割轮、砂磨百叶轮、钢丝刷和钢丝轮都必须使用防护罩。*请参考图A,查看设备随附的防护罩。对于有些应用,可能需要从当地经销商或授权服务中心购买适用的防护罩。*

小心:*使用A型(切割)砂轮防护罩进行表面磨削时,砂轮防护罩可能会干扰工件,影响控制。*

***小心：**使用B型（磨削）砂轮防护罩和粘合磨料进行切割操作时，暴露于火花和微粒的风险以及在砂轮爆裂时暴露于砂轮碎片的风险会增加。*

***小心：**使用A型（切割）、B型（磨削）砂轮防护罩对混凝土或砖石进行切割和磨削作业时，接触粉尘和因失控而回弹的风险会增加。*

***小心：**使用A型（切割）、B型（磨削）砂轮防护罩和厚度大于**技术数据**中规定的最大厚度的轮式钢丝刷时，钢丝可能会卡在防护罩上，导致钢丝断裂。*

注意：边缘研磨和切割可使用专为该用途设计和指定的27型转轮进行；6 mm厚的转轮适用于表面研磨，而较薄的27型转轮需要检查制造商标签，以确定其是否可用于表面研磨或仅用于边缘研磨/切割。禁止表面打磨的砂轮必须使用A型（切割）砂轮防护罩。A型（切割）（以前称为1/41型）砂轮防护罩必须用于任何两用（磨削和切割）砂轮。1/41型砂轮和A型切割砂轮防护罩（以前称为1/41型防护罩）也可用于切割。

注意：请参见***配件和防护罩应用表***，选择合适的防护罩/配件组合。

调整和安装防护罩（图 B、C）

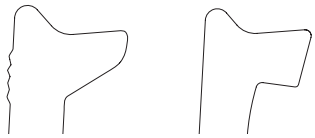
***注意：**在进行任何调整、拆除或安装配件或配件之前，请关闭设备并拔下工具的电源插头。*

***小心：**在操作工具之前，请确认工具当前设置的防护罩调节选项。*

调节选项

调节防护罩时，防护罩释放杆 **7** 使用棘轮功能接合到防护罩轴环上的一个对准孔 **13**。角磨机有两种调节模式。

- **单触式™：**在此位置，啮合面是倾斜的，当防护罩按顺时针方向旋转时（主轴朝向用户），啮合面会越过下一个对准孔，但按逆时针方向旋转时会自锁。
- **双触式™**：在此位置，啮合面是直的，呈方形。除非沿顺时针或逆时针方向（主轴朝向用户）旋转防护罩的同时按住防护罩释放杆，否则防护罩不会转到下一个对准孔。



单触式™　　双触式™

设置防护罩调节模式

调节防护罩释放杆 **7** 以选择调节模式：

1. 使用T20钻头卸下螺钉 **21**。
2. 取下防护罩释放杆，注意弹簧位置。选择所需的调节模式的杆端。单触式™使用防护罩释放杆 **7** 的斜端与防护罩套环上的对准孔 **13** 啮合。双触式TM使用方形端啮合防护罩套环上的对准孔 **13**。
3. 重新装上杆，将选定的一端放在弹簧 **12** 下方。确保杆与弹簧正确接触。
4. 更换螺钉并用2.0-3.0 Nm的扭矩拧紧。按下防护罩释放杆 **7**，确保安装正确并具有弹簧复位功能。

安装防护罩（图C）

***小心：**安装防护罩之前，确保螺钉、手柄和弹簧安装正确。*

1. 让主轴面向操作员，按住防护罩释放杆 **7**。
2. 将防护罩上的凸耳 **14** 与齿轮箱上的槽 **15** 对准。
3. 向下推动防护罩，直到防护罩上的凸耳啮合并在齿轮箱轮毂上的凹槽中旋转。松开防护罩释放杆。
4. 定位防护罩：

   一触式™：将防护罩顺时针旋转到所需的工作位置。按住防护罩释放杆 **7**，沿逆时针方向旋转防护罩。

   双触式™：按住防护罩释放杆 **7**。

   顺时针或逆时针旋转防护罩至所需的工作位置。

   注意：防护罩主体应该位于主轴和操作者之间，最大限度地保护操作者安全。

   防护罩释放杆应卡入防护罩套环上的一个对准孔 **13** 中。这可确保防护罩固定牢固。
5. 拆卸防护罩时，按相反的顺序执行这些说明中的步骤1-3即可。

法兰和转轮

安装无毂转轮（图D）

***警告：**法兰和/或转轮未正确就位会导致严重的人身伤害（或造成工具或转轮损坏）。*

***小心：**27型砂轮和41/42型切割轮必须使用随附的法兰。如需详细信息，请参见**磨削和切割配件表**。*

***警告：**使用研磨切割轮或金刚石涂层切割轮时，需要使用封闭式双面切割轮防护罩。*

***警告：**使用损坏的法兰或防护罩或未使用正确的法兰和防护罩会因转轮破损和转轮接触而导致人身伤害。如需更多信息，请参见**配件和防护罩应用表**。*

1. 将工具放在工作台上，盖好防护罩。
2. 将无螺纹背衬法兰 **3** 安装到主轴 **1** 上，使凸起中心（导孔）面向转轮。
3. 将转轮 **16** 靠在背衬法兰上，使转轮在背衬法兰的凸起中心（导孔）上居中。
4. 按下主轴锁定按钮，六角凹陷朝向远离转轮的方向，将螺纹夹紧螺母 **4** 拧在主轴上，使凸耳啮合主轴上的两个槽。
5. 按下主轴锁定按钮的同时，用六角扳手拧紧螺纹夹紧螺母 **4**。
6. 如需拆下砂轮，按下主轴锁定按钮并松开螺纹锁紧法兰。

安装砂磨衬垫（图A、E）

注意：不要求将防护罩与使用衬垫的砂磨盘（通常称为纤维树脂盘）结合使用。由于这些配件不需要防护罩，使用防护罩时防护罩可能会也可能不会正确吻合。

***注意：**不要求将防护罩与使用衬垫的砂磨盘（通常称为纤维树脂盘）结合使用。由于这些配件不需要防护罩，使用防护罩时防护罩可能会也可能不会正确吻合。*

***警告：**砂磨应用完成后，必须为砂轮、切割轮、砂磨百叶轮、钢丝刷或钢丝轮应用重新安装合适的防护罩。*

1. 将衬垫 **17** 放在主轴上或用螺丝适当固定到主轴上。
2. 将砂磨盘 **18** 放在衬垫 **17** 上。
3. 在按下主轴锁定按钮 **2** 的同时，将夹紧螺母 **19** 拧到主轴上，将夹紧螺母上凸起的轮毂引导到砂磨盘和衬垫的中心。
4. 用手拧紧夹紧螺母。然后在转动砂磨盘的同时按下主轴锁定按钮，直到砂磨盘和夹紧螺母紧密贴合。
5. 如需拆下转轮，按住主轴锁定按钮，抓住并转动衬垫和砂磨垫。

安装钢丝杯刷和钢丝轮（图A）

***警告：**未正确固定法兰/夹紧螺母/转轮可能会导致严重的人身伤害（或损坏工具或转轮）。*

***小心：为了降低人身伤害风险，在处理钢丝刷和转轮时请戴上工作手套。**它们非常锋利。*

***小心：为了降低工具损坏的风险，安装或使用时，转轮或钢丝刷不得接触防护罩。**配件可能会发生无法察觉的损坏，导致钢丝从配件转轮或杯上脱落。*

钢丝杯刷或钢丝转轮直接安装在螺纹主轴上，无需使用法兰。仅使用配有M14螺纹轮毂的钢丝刷或钢丝轮。这些配件可从您当地的经销商或授权服务中心处付费购买。

1. 将工具放在工作台上，盖好防护罩。
2. 用手将转轮用螺钉固定在主轴上。
3. 按下主轴锁定按钮 **2**，并使用扳手或刷子在钢丝转轮轮毂上拧紧钢丝转轮。
4. 拆卸转轮时按与上述步骤相反的顺序执行即可。

***注意：**为了降低损坏工具的风险，在启动工具前正确安装轮毂。*

操作前

- 安装防护罩和适用的磨盘或转轮。请勿使用过度磨损的磨盘或转轮。
- 确保内法兰和外法兰安装正确。遵循***配件和防护罩应用表***中的说明进行操作。
- 确保磨盘或转轮按照配件和工具上的箭头方向旋转。
- 请勿使用损坏的配件。每次使用前检查转轮等配件是否有碎片和裂纹，衬垫是否有裂纹、撕裂或过度磨损，钢丝刷是否有钢丝松动或开裂。如果电动工具或配件掉落，请检查是否有损坏或重新安装一个完好无损的配件。检查和安装配件后，请您和旁观者远离旋转配件的平面，并以最大的空载速度运行电动工具一分钟。通常，受损的配件会在这个测试时间内破裂。

操作

使用说明

***警告：**务必遵守安全指示和适用法规。*

***警告：为降低严重的人身伤害风险，在进行任何调整或取出/安装配件或配件之前，请关闭工具并断开工具与电源的连接。**确保触发开关处于关闭位置。意外启动工具可能会造成伤害。*

警告：

- *确保将所有待磨削或切割的材料固定牢固。*
- *固定并支撑工件。使用夹具或台钳将工件固定并支撑在稳定的平台上。必须牢固夹紧和支撑工件，以防止工件移动和失控。工件的移动或失控可能会造成危险并导致人身伤害。*
- ***支撑面板或任何过大的工件，尽可能减少转轮夹住和回旋的风险。**大型工件在承受自身重量时容易凹陷。支架必须放置在靠近切割线的工件下方，并且靠近转轮两侧的工件边缘。*
- *操作该工具时务必戴上普通的工作手套。*
- *齿轮在使用过程中温度变得极高。*
- *仅对工具施加轻微的压力即可。请勿在磨盘上施加侧压力。*
- *务必安装防护罩和适当的磨盘或转轮。请勿使用过度磨损的磨盘或转轮。*
- *确保内法兰和外法兰安装正确。*
- *确保磨盘或转轮按照配件和工具上的箭头方向旋转。*
- *避免过载。如果工具变热，使其在空载条件下运行几分钟，让配件冷却。在配件冷却之前请勿触摸。磨盘在使用过程中的温度会变得非常高。*
- *如果没有合适的防护罩，切勿使用研磨杯。*
- *请勿将电动工具与切割台搭配使用。*
- *切勿将吸墨纸与粘合磨料产品一同使用。*
- *请注意，工具关闭后，转轮会继续旋转。*

正确的双手放置位(图F)

***警告：**为减少重伤的风险，请**始终**遵循正确的双手放置位，如图所示。*

***警告：**为了减低造成严重人身伤害的风险，预期有突然反作用力时**务必**握紧。*

如图F所示，正确的双手位置是一只手放在侧面手柄 **5** 上，另一只手放在工具的主体上。

变速盘（图A）

***警告：**无论速度设置如何，配件的额定速度必须至少等于电动工具上标注的最大速度。*

变速盘可优化工具控制，确保工具在最佳条件下使用，以适应配件和材料。

- 将变速盘 **11** 转到所需的速度。将变速盘向上旋转表可调高速度，向下旋转可调低速度。

触发开关和锁定杆（图A）

***警告：**使用工具前检查侧手柄是否拧紧。*

***小心：**握紧工具的侧面手柄和主体，在启动和使用过程中保持对工具的控制，直到转轮或配件停止旋转。放下工具前确保转轮完全停止。*

1. 要打开工具，将锁定杆 9 推向工具背面，然后按下触发开关 8。按下开关时，工具将运行。
2. 松开触发开关即可关闭工具。

***警告：**在工具接触工作面之前，让工具达到全速。关闭工具前，从工作面提起工具。*

主轴锁定（图A）

主轴锁定按钮 2 用于在安装或拆卸转轮时防止主轴旋转。只有当工具关闭、从电源上拔下并完全停止时，才能操作主轴锁。

***注意：**为了降低损坏工具的风险，请勿在工具运行时使用主轴锁。这会导致工具损坏，而且连接的配件可能脱落，从而可能造成人身伤害。*

如需锁定，按下主轴锁定按钮并旋转主轴，直到无法继续旋转主轴。

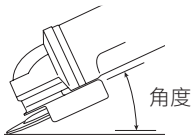
表面磨削、砂磨和用钢丝刷清理

小心：务必按照本手册中的说明使用正确的防护罩。

***警告：金属粉尘积聚。**在金属应用中大量使用百叶轮会增加触电的可能性。为降低这种风险，请在使用前插入RCD，并按照以下维护说明，每天向通风槽内吹入干燥压缩空气以清洁通风槽。*

如需在工件表面上执行工作：

1. 在工具接触工作面之前，让工具达到全速。
2. 对工作面施加尽可能小的压力，使工具高速运转。当工具高速运转时，材料去除率最大。



3. 让工具和工作面呈适当的角度。根据特定功能参考图表。

功能	角度
磨削	20°-30°
用百叶轮打磨	5°-10°
用衬垫打磨	5°-15°
用钢丝刷清理	5°-10°

4. 使转轮边缘和工作面之间保持接触。
   - 如果进行磨削，通过百叶轮打磨或钢丝刷清理连续地向前和向后移动工具，以避免擦伤工作面。
   - 如果用衬垫砂磨，请沿直线不断移动工具，以防止工作面烧损和打转。

注意：如果让工具停留在工作面上而不移动，则会损坏工件。

5. 关闭工具前，将工具从工作面上取下。放下工具前，让工具停止旋转。

***小心：**在边缘作业时应格外小心，因为研磨机可能会突然剧烈晃动。*

处理涂漆工件时应采取的预防措施

1. 由于难以控制脏污的灰尘，因此不建议使用砂纸打磨或钢丝刷来处理含铅涂料。铅中毒对儿童和孕妇的危害最大。
2. 由于不进行化学分析很难确定油漆是否含铅，因此我们建议在砂磨任何油漆时采取以下预防措施：

人身安全

1. 在所有清理工作完成之前，儿童或孕妇不得进入正在进行油漆砂磨或钢丝刷清理的工作区域。
2. 所有进入工作区域的人员都应佩戴防尘口罩或呼吸器。过滤器应每天更换，或在佩戴者呼吸困难时更换。

   注意：只能使用适合处理含铅油漆粉尘和烟雾的防尘面具。普通喷漆面具无法提供这种保护。请咨询您当地的硬件经销商，以获取经N.I.O.S.H.认可的合适面具。
3. 不得在工作区域饮食或吸烟，以防止吸入被污染的油漆颗粒。工作人员在饮食或吸烟之前应该进行洗手和清理。不应将食品、饮料或吸烟物品留在工作区，否则会落满灰尘。

环境安全

1. 应以尽量减少灰尘的方式清除油漆。
2. 发生脱漆的区域应该用厚度4密耳的塑料薄膜密封。
3. 砂磨时应减少工作区域外油漆粉尘的痕迹。

清洁和处理

1. 在砂磨项目期间，应对工作区域的所有表面每天进行吸尘和彻底清洁。真空滤袋应经常更换。
2. 应将塑料抹布收集起来，与任何灰尘碎片或其他清除碎片一同处理。应将其放在密封的垃圾箱中，并通过常规的垃圾收集程序进行处理。清理过程中，儿童和孕妇应远离直接工作区域。
3. 儿童使用的所有玩具、可洗家具和用具在再次使用前应彻底清洗。

边缘磨削和切割

***警告：**切勿将边缘磨削/切割转轮用于表面磨削，因为该工具并非设计用于表面磨削时所遇到的侧压力。可能会导致转轮破损和损伤。*

***小心：**在使用转轮进行边缘磨削和切割时，如果使用工具的同时转轮发生弯曲或扭曲，可能会断裂或回旋。在所有磨削/切割操作中，防护罩的开口侧必须远离操作者。*

***注意：**如果要使用27型砂轮进行边缘磨削/切割，必须仅限于浅切割和开槽—新砂轮的深度小于13 MM。随着转轮磨损，应减少切割/开槽的深度，使其等于转轮半径的减少量。如需详细信息，请**参阅配件和防护罩应用表**。使用41型砂轮进行边缘磨削/切割时，需要使用A型防护罩。*

1. 在工具接触工作面之前，让工具达到全速。
2. 对工作面施加尽可能小的压力，使工具高速运转。当工具高速运转时，磨削/切削速率最大。
3. 请调整您自己的位置，使转轮的开口底面背向你。

4. 开始切割并在工件上形成切口后，请勿改变切割的角度。改变角度会导致转轮弯曲，并可能导致转轮断裂。边缘磨削转轮无法承受弯曲造成的侧压力。
5. 关闭工具前，将工具从工作面上取下。放下工具前，让工具停止旋转。

金属应用

在金属应用中使用工具时，确保已安装剩余电流装置（RCD），以消除金属屑造成的风险。

如果电源被RCD关闭，请将工具送到DEWALT授权的维修代理处。

***警告：**在极端工作条件下进行金属加工时，机器外壳内可能会积聚导电灰尘。这可能导致机器中的保护性绝缘降级，产生潜在的触电危险。*

为避免金属屑在机器内堆积，建议每天清理通风槽。请参阅***维护***。

切割金属

使用粘合磨料切割时，请始终使用A型防护罩。

切割时，根据被切割的材料选择适当的进给量。请勿在切割盘上施加压力，倾斜或摆动机器。

请勿通过施加侧向压力来降低切割盘的运行速度。

机器必须始终以逆转向磨削的方式工作。否则可能被不受控地推出切口。

切割型材和方钢时，最好从最小的横截面开始。

粗磨

切勿使用切割盘进行粗磨。始终使用B型防护罩。

将机器设置在30°到40°的角度时，可以获得最佳的粗磨效果。施加适度的压力来回移动机器。这样会防止工件过热、变色，也不会形成凹槽。

切割石材

该机器只能用于干式切割。

切割石材时，最好使用金刚石切割盘。仅在带额外防尘面具的情况下操作机器。

工作建议

在结构墙上切割槽时应小心。

在结构墙中开槽应遵守特定国家的法规。在任何情况下都必须遵守这些规定。开始施工前，请咨询负责的结构工程师、建筑师或施工监理。

维护

您的DEWALT电动工具设计精良，可以长期使用，仅需极少维护。

若要持续令人满意的工作效果，则需对工具进行适当的保养和定期清洁。

***警告：为降低严重的人身伤害风险，在进行任何调整或取出/安装配件或配件之前，请关闭工具并断开工具与电源的连接。**确保触发开关处于关闭位置。意外启动工具可能会造成伤害。*

润滑

本电动工具无需另行润滑

清洁

***警告：**电击和机械危险。清洁前，请将电器与电源断开。*

***警告：**为确保操作安全、有效，请注意清洁电器和通风槽。*

***警告：**不得使用溶剂或其它刺激性化学制品来清洁工具的非金属部件。这些化学物质可能会削弱这些部位使用的材料。请用布蘸温和的肥皂水擦拭。不得让任何液体渗入工具，不得让工具的任何部件浸在液体中*

通风槽可以用干燥、柔软的非金属刷和/或合适的吸尘器进行清洁。请勿使用水或任何清洁剂。请戴上合格的护目镜和防尘面具。

可选配件

***警告：**除了DEWALT提供的配件之外，其他配件都未经此产品兼容性测试，若将此类配件与本工具一起使用将存在安全隐患。为降低人身伤害风险，本产品只可使用DEWALT推荐的配件。*

***警告：**请勿使用过期（EXP）的粘合磨料砂轮，过期日期标在砂轮中心附近（如有）。过期的砂轮更可能爆裂并致人重伤。将粘合磨料砂轮存放在无极端温度或湿度的干燥场所。*

销毁过期或损坏的砂轮，使其无法使用。

***警告：**配件的额定速度必须至少达到工具警告标签上的建议速度。*

*砂轮和其他配件的运行速度超过其额定配件速度时，可能会飞散并致人受伤。带螺纹的配件必须使用M14轮毂。每个无螺纹配件都必须有一个22毫米的轴孔。如果没有，则可能是为圆锯设计的。只能使用本手册**配件和防护罩应用表**中所示的配件。配件额定值必须始终高于工具铭牌上显示的工具速度。*

***警告：**小心处理和存放所有砂轮，以防止热冲击、高温、机械故障等问题损坏砂轮。请将其存放在干燥、受保护的区域，避免湿度过高、温度过低或温度骤变。*

请向您的经销商咨询更多关于合适配件的信息。

该工具可容纳直径125毫米x厚6毫米的砂轮或切割轮。一定要选择适用于角磨机配件的防护罩、背垫和法兰。如需了解如何选择正确配件，请参阅**配件和防护罩应用表。**

保护环境

分类回收。由此符号标记的产品和电池包不得与普通家庭垃圾一起处理。

产品和电池包含可恢复或回收的材料，从而降低对原材料的需求。请根据当地规定回收电子产品和电池包。要获得更多信息，请参看**www.2helpU.com**。

LED指南

本节列出了LED指示灯可能的闪烁模式、原因和纠正方法。用户或维护人员可以执行某些纠正措施，而其他措施可能需要具备资质的DEWALT技术人员或授权的DEWALT经销商进行协助。

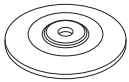
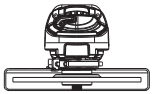
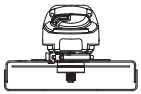
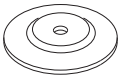
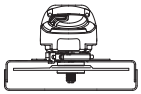
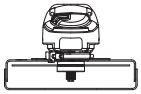
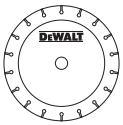
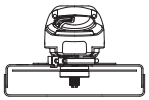
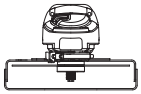
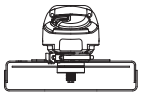
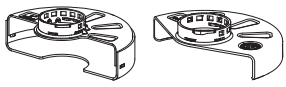
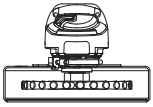
▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮	断电保护
问题	**解决方法**
开关位于接通位置，电源已接通。设备一直处于关闭状态。	循环开关，以重新启动。
▮▮▮ ▮▮▮ ▮▮▮	回弹制动器
问题	**解决方法**
工具感应到挤压，回弹制动器已启动。	检查配件是否因挤压而损坏，必要时更换。根据需要调整工件和工具位置，然后循环开关重新启动。
▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮	过热保护
问题	**解决方法**
设备已关闭，以防止过热造成永久性损坏。	确保在使用过程中，用户的手、衣服或碎屑不会堵塞进气口和排气口。减少开关工具和循环开关的频率，以便重新启动和/或拔下设备插头，然后重新插上。
▮ ▮ ▮ ▮ ▮ ▮	停转/过载保护
问题	**解决方法**
设备长时间处于停转状态，并已关闭。	从工具上卸下负载，然后循环开关重新启动。
▮▮ ▮▮ ▮▮	电源线问题
问题	**解决方法**
设备采用劣质电源（如低质量发电机）运行。这种电源可能会损坏工具。	尝试使用其他电源，缩短延长线长度或减少电源上同时使用的设备。

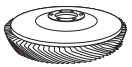
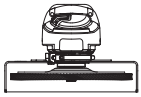
售后服务和维修

DEWALT维修中心拥有经过培训的人员，能够为顾客提供高效、可靠的产品服务。

如果您通过未获授权的维修中心进行维修，我们不会承担任何责任。您可以参见产品包装中的"联系中心定位器"宣传单页，通过热线电话、网站或社交媒体联系我们，找到距离您最近的DEWALT服务中心。

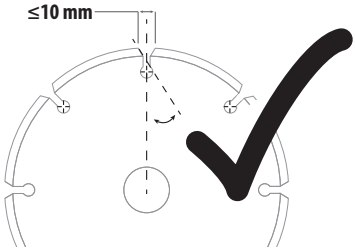
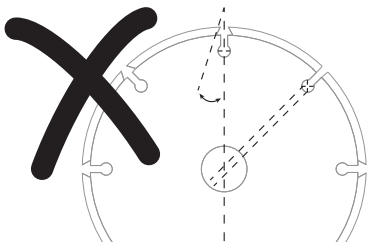
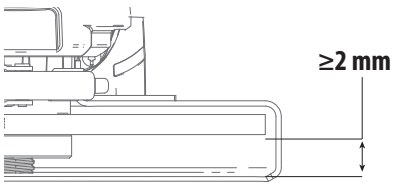
DWE4377配件和防护罩应用

	配件类型	配件	防护罩	参考装配
表面角磨机	27型砂轮		 B型（研磨）	
切割	41（1A）型砂轮（金属）		 A型（封闭式切割）	
	42（27A）型砂轮（金属）		 A型（封闭式切割）	
	41（1A）型砂轮（砖石/混凝土）		 A型（封闭式切割）	
	金刚石切割轮（砖石/混凝土）		 A型（封闭式切割）	[4] 
			[4]有关可接受的金刚石砂轮几何形状，请参考***防护罩和配件附加信息表***。	
	用于金属或砖石/混凝土以外材料的砂轮		 A型（封闭式切割）	
两用型（切割和磨削）	两用磨料砂轮		 A型（封闭式切割）	
用钢丝刷清理	轮式钢丝刷		 A型或B型（封闭式切割或磨削）	
	杯型钢丝刷		不需要防护罩	

	配件类型	配件	防护罩	参考装配
磨削	百叶轮 (27型/29型)		 B型 (研磨)	
	柔性磨料 (如砂纸) (由柔性衬垫支撑)		 不需要防护罩	

A型 (41型) 防护罩适用于41型 (1A) 切割轮和42型 (27A) 切割轮。使用27型和29型以外的砂轮进行磨削时，需要使用不同的配件防护罩。始终使用小型适当防护罩，以免接触到配件。

注意：A型 (切割) 和B型 (磨削) 砂轮防护罩以前称为1/41型和27型砂轮防护罩。

防护罩和配件的其他信息	
使用分段式金刚石转轮时，仅可使用周边间隙不大于10mm且有负倾角的金刚石转轮。	
切勿使用 **周边间隙大于10毫米和/或具有正倾角的分段式金刚石砂轮。**	
对于所有磨削、砂光和轮式钢丝刷配件，配件的最低部分必须装在防护罩内，与防护罩下唇的间隙至少为2毫米。	

DWE4377防护罩和配件指南		
用于DWE4377的未经批准的砂轮	11/T11类	

危险：*请勿用于木材切割或木雕。请勿使用任何类型的带齿刀片。否则会致人重伤。*

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