

DEWALT®

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D28420

D28421

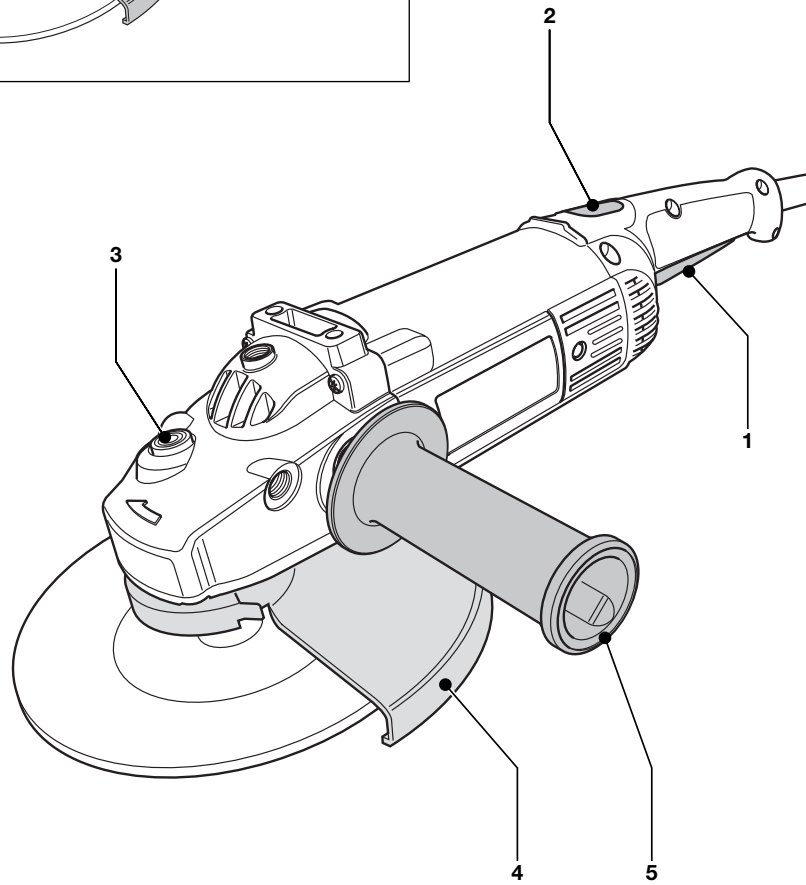
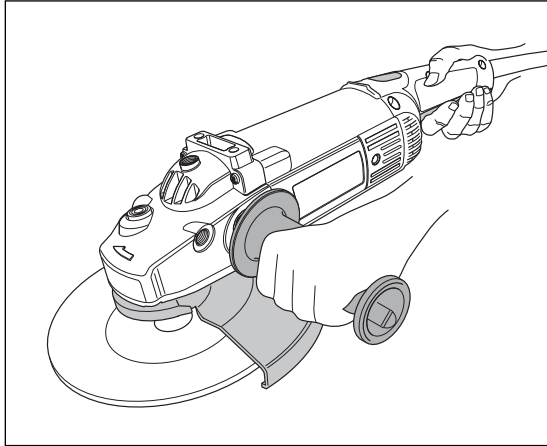
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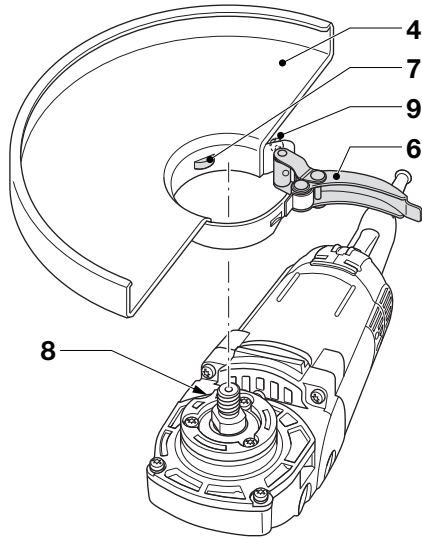
D28432C

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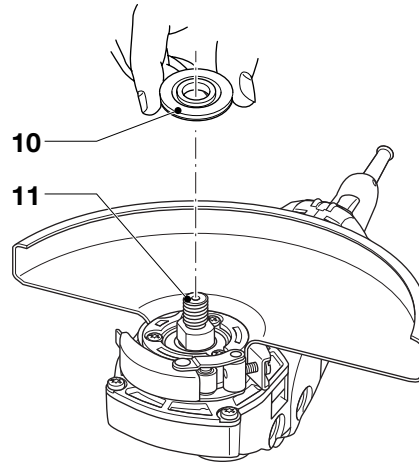
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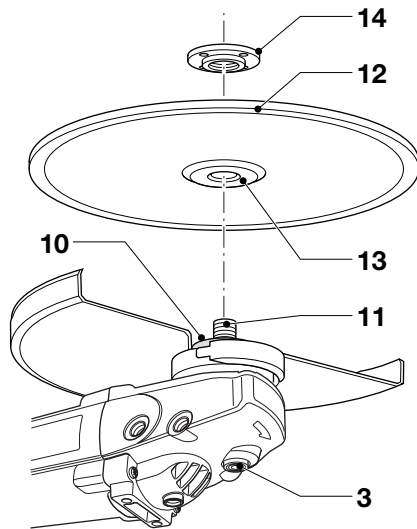
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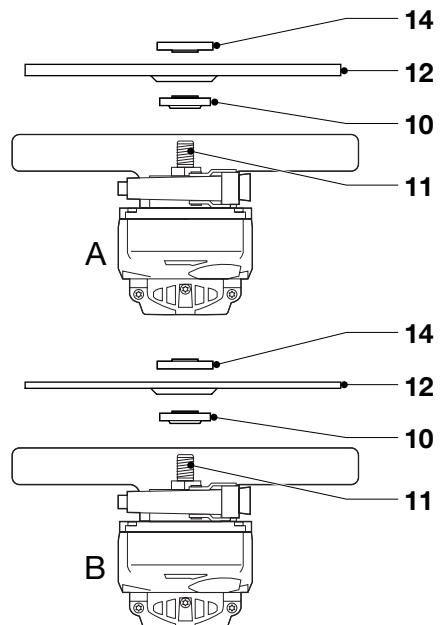
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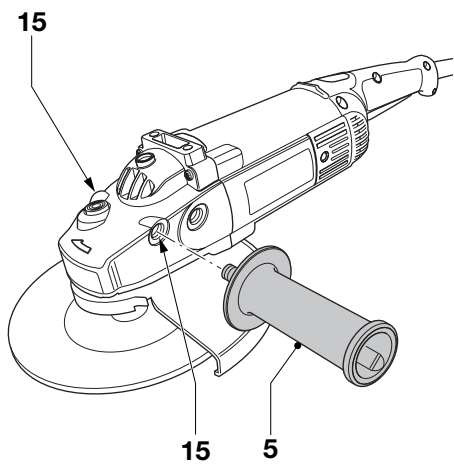
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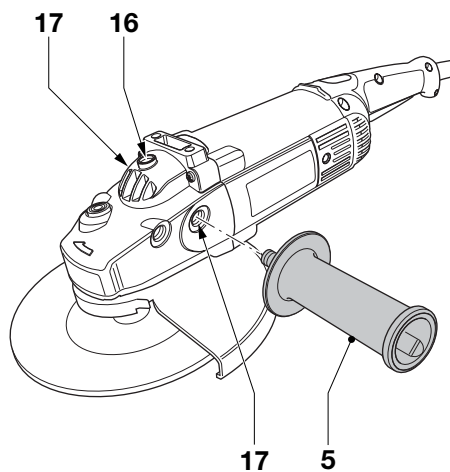
C2



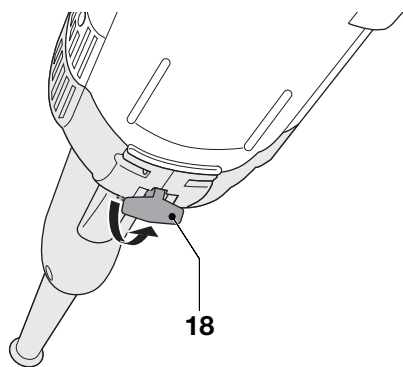
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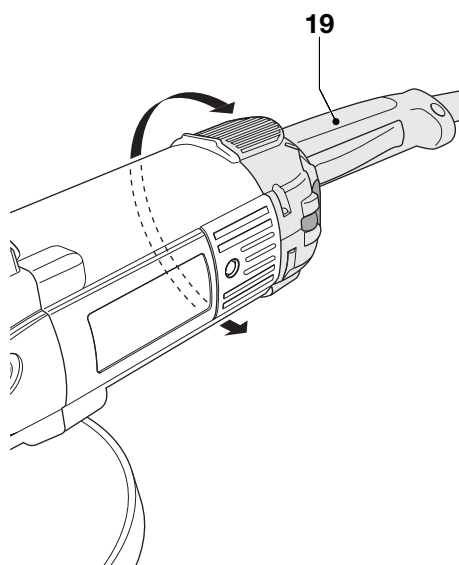
D1



D2



E1



E2

ANGLE GRINDER

D28410/D28411/D28413/D28414/D28420/ D28421/D28422/D28423/D28432C/D28750

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

	D28410	D28411	D28413	D28414	D28420	D28421
Voltage	V 230	230	230	230	230	230
(U.K. & Ireland only)	V			230/115		
Power input	W 2,100	2,100	2,200	2,200	2,300	2,300
No-load speed	min ⁻¹ 8,500	6,500	8,500	6,500	8,500	6,500
Wheel diameter	mm 180	230	180	230	180	230
Spindle	M14	M14	M14	M14	M14	M14
Weight	kg 4.7	4.7	4.7	4.7	5.3	5.3

	D28422	D28423	D28432C	D28750
Voltage	V 230	230	230	230
(U.K. & Ireland only)	V	230/115	230/115	
Power input	W 2,400	2,400	2,600	2,400
No-load speed	min ⁻¹ 8,500	6,500	6,500	5,000
Wheel diameter	mm 180	230	230	230
Spindle	M14	M14	M14	M14
Weight	kg 5.3	5.3	5.3	5.3

Fuses:

Europe	230 V tools	10 Amperes, mains
U.K. & Ireland	230 V tools	13 Amperes, in plugs

The following symbols are used throughout this manual:



Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.



Denotes risk of electric shock.



Fire hazard.

EC-Declaration of conformity



D28410/D28411/D28413/D28414/D28420/
D28421/D28422/D28423/D28432C/D28750

DEWALT declares that these power tools have been designed in compliance with: 98/37/EC, 89/336/EEC, 2006/95/EC, EN 60745-1, EN 50144-2-3, EN 55014-2, EN 55014-1, EN 61000-3-2 & EN 61000-3-3.

For more information, please contact DEWALT at the address below, or refer to the back of the manual.

ENGLISH

Level of sound pressure according to 86/188/EEC & 98/37/EC, measured according to EN 50144:

		D28410	D28411	D28413	D28414	D28420	D28421	D28422	D28423	D28432C	D28750
L _{pA} (sound pressure)	dB(A)*	90.5	90.0	90.0	90.0	90.5	90.5	90.0	90.0	90.0	90.5
L _{WA} (acoustic power)	dB(A)	99.5	98.5	98.5	98.5	99.5	99.5	99.0	98.5	98.5	99.0

* at the operator's ear



Take appropriate measures for the protection of hearing.

Weighted root mean square acceleration value according to EN 50144:

	D28410	D28411	D28413	D28414	D28420	D28421	D28422	D28423	D28432C	D28750
	5.8 m/s ²	5.95 m/s ²	5.8 m/s ²	5.9 m/s ²	5.95 m/s ²	6.1 m/s ²	5.9 m/s ²	5.5 m/s ²	5.9 m/s ²	5.9 m/s ²

Director Engineering and Product Development
Horst Großmann

DEWALT, Richard-Klinger-Straße 40,
D-65510, Idstein, Germany
04/2007

Safety instructions

When using power tools, always observe the safety regulations applicable in your country to reduce the risk of fire, electric shock and personal injury.

Read all of this manual carefully before operating the tool.

Save this manual for future reference.

General

1 Keep work area clean

Cluttered areas and benches can cause accidents.

2 Consider work area environment

Do not expose the tool to rain. Do not use the tool in damp or wet conditions. Keep the work area well lit (250 - 300 Lux). Do not use the tool where there is a risk of causing fire or explosion, e.g. in the presence of flammable liquids and gases.

3 Keep children away

Do not allow children, visitors or animals to come near the work area or to touch the tool or the mains cable.

4 Dress properly

Do not wear loose clothing or jewellery, as these can be caught in moving parts. Wear protective hair covering to keep long hair out of the way. When working outdoors, preferably wear suitable gloves and non-slip footwear.

5 Personal protection

Always use safety glasses. Use a face or dust mask whenever the operations may produce dust or flying particles. If these particles might be considerably hot, also wear a heat-resistant apron. Wear ear protection at all times.

6 Guard against electric shock

Prevent body contact with earthed surfaces (e.g. pipes, radiators, cookers and refrigerators). When using the tool under extreme conditions (e.g. high humidity, when metal swarf is being produced, etc.), electric safety can be improved by inserting an isolating transformer or a (FI) earth-leakage circuit-breaker.

7 Do not overreach

Keep proper footing and balance at all times.

8 Stay alert

Watch what you are doing. Use common sense. Do not operate the tool when you are tired.

9 Secure workpiece

Use clamps or a vice to hold the workpiece. It is safer and it frees both hands to operate the tool.

10 Connect dust extraction equipment

If devices are provided for the connection of dust extraction and collection facilities, ensure that these are connected and properly used.

11 Remove adjusting keys and wrenches

Always check that adjusting keys and wrenches are removed from the tool before operating the tool.

12 Extension cables

Before use, inspect the extension cable and replace if damaged. When using the tool outdoors, only use extension cables intended for outdoor use and marked accordingly.

13 Use appropriate tool

The intended use is described in this instruction manual. Do not force small tools or attachments to do the job of a heavy-duty tool. The tool will do the job better and safer at the rate for which it was intended. Do not force the tool.

Warning! The use of any accessory or attachment or performance of any operation with this tool other than those recommended in this instruction manual may present a risk of personal injury.

14 Check for damaged parts

Before use, carefully check the tool and mains cable for damage. Check for misalignment and seizure of moving parts, breakage of parts, damage to guards and switches and any other conditions that may affect its operation. Ensure that the tool will operate properly and perform its intended function. Do not use the tool if any part is damaged or defective. Do not use the tool if the switch does not turn it on and off. Have any damaged or defective parts replaced by an authorised DEWALT repair agent. Never attempt any repairs yourself.

15 Unplug tool

Switch off and wait for the tool to come to a complete standstill before leaving it unattended. Unplug the tool when not in use, before changing any parts of the tools, accessories or attachments and before servicing.

16 Avoid unintentional starting

Do not carry the tool with a finger on the switch. Be sure that the tool is switched off before plugging in.

17 Do not abuse cord

Never carry the tool by its cord. Never pull the cord to disconnect from the socket. Keep the cord away from heat, oil and sharp edges.

18 Store idle tools

When not in use, tools must be stored in a dry place and locked up securely, out of reach of children.

19 Maintain tools with care

Keep the tools in good condition and clean for better and safer performance. Follow the instructions for maintenance and changing accessories. Keep all handles and switches dry, clean and free from oil and grease.

20 Repairs

This tool is in accordance with the relevant safety regulations. Have your tool repaired by an authorised DEWALT repair agent. Repairs should only be carried out by qualified persons using original spare parts; otherwise this may result in considerable danger to the user.

Additional safety rules for grinders

- Your grinder has been designed for grinding and cutting masonry and steel.



Do not cut or grind light metal with a magnesium content exceeding 80% since this type of metal is flammable.

- Only reinforced cutting-off and reinforced depressed-centre grinding wheels are allowed.
- Use the grinding and cutting discs recommended by the manufacturer only.
- To ensure your personal safety it is compulsory to hold the machine with both hands as shown in Figure A. Contravention may lead to loss of control and unexpected injuries.
- The max. allowable speed of the grinding wheel or cutting disc must always be equal to or greater than the no-load speed of the tool specified on the nameplate.
- Do not cut workpieces requiring a maximum depth of cut exceeding that of the cutting disc.
- Do not use grinding and cutting discs that do not conform to the dimensions stated in the technical data. Do not use any spacers to make a disc fit onto the spindle.
- Inspect grinding and cutting discs before each use. Do not use chipped, cracked or otherwise defective discs.
- If provided, ensure that blotters are used when the disc is fitted onto the spindle.

ENGLISH

- Ensure that the grinding or cutting disc is mounted correctly before use.
- Let the tool run at no-load in a safe position for at least 30 seconds. If there is a considerable vibration or if any other defect occurs, stop the tool and check it to determine the cause.
- Do not operate this tool without the guard in place.
- Check that the workpiece is properly supported.
- Do not operate the tool near flammable liquids, gases or dust. Sparks or hot chips from cutting or arcing motor brushes may ignite combustible materials.
- Do not operate the tool while standing in line with the disc. Keep other persons away from the work area.
- Do not use cutting discs for side grinding.
- Do not operate the spindle lock while the tool is running.
- Beware that after switching off the tool the wheel continues to rotate for a short period.
- Always store grinding and cutting discs in a dry place.

Labels on tool

The following pictographs are shown on the tool:



Read the instruction manual before use



Wear safety glasses



Wear ear protection

Package contents

The package contains:

- 1 Angle grinder
 - 1 Guard
 - 1 Side handle
 - 1 Flange set
 - 1 Two-pin spanner
 - 1 Instruction manual
 - 1 Exploded drawing
- 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.

Description (fig. A)

Your angle grinder has been designed for professional grinding and cutting applications.

- 1 On/off switch
- 2 Locking switch/Unlocking switch (France only)
- 3 Spindle lock
- 4 Guard
- 5 Side handle

D28413/D28414/D28420/D28422/D28423/ D28432C/D28750 - Soft start feature

The soft start feature allows a slow speed build-up to avoid an initial jerk when starting. This feature is particularly useful when working in confined spaces.

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.

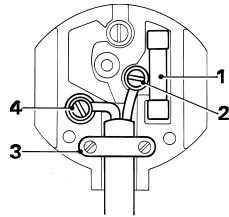


Your DEWALT tool is double insulated in accordance with EN 50144; therefore no earth wire is required.

Mains plug replacement (U.K. & Ireland only)

- Should your mains plug need replacing and you are competent to do this, proceed as instructed below. If you are in doubt, contact an authorized DEWALT repair agent or a qualified electrician.
- Disconnect the plug from the supply.
- Cut off the plug and dispose of it safely; a plug with bared copper conductors is dangerous if engaged in a live socket outlet.
- Only fit 13 Amperes BS1363A approved plugs fitted with the correctly rated fuse (1).
- The cable wire colours, or a letter, will be marked at the connection points of most good quality plugs. Attach the wires to their respective points in the plug (see below). Brown is for Live (L) (2) and Blue is for Neutral (N) (4).

- Before replacing the top cover of the mains plug ensure that the cable restraint (3) is holding the outer sheath of the cable firmly and that the two leads are correctly fixed at the terminal screws.



Never use a light socket.
Never connect the live (L) or neutral (N) wires to the earth pin marked E or \perp .

**Fitting a mains plug to 115 V units
(U.K. & Ireland only)**

- The plug should be fitted by a competent person. If you are in doubt, contact an authorized DEWALT repair agent or a qualified electrician.

The wires are coloured according to the following code:

live = brown
neutral = blue

- Do not connect the blue or brown wire to the earth terminal in the plug. Connect as follows:
brown to terminal marked 'L'
blue to terminal marked 'N'

The plug fitted should comply with BS EN 60309 (BS4343), 32 Amps.



Always ensure that the cable clamp is correctly and securely fitted to the sheath of the cable.

Using an extension cable

If an extension cable is required, use an approved extension cable suitable for the power input of this tool (see technical data). The minimum conductor size is 1.5 mm².

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

Also refer to the following table.

Conductor size (mm ²)	Cable rating (Amperes)						
0.75	6						
1.00	10						
1.50	15						
2.50	20						
4.00	25						
	Cable length (m)						
	7.5	15	25	30	45	60	
Voltage	Amperes	Cable rating (Amperes)					
115	0 - 2.0	6	6	6	6	6	10
	2.1 - 3.4	6	6	6	6	15	15
	3.5 - 5.0	6	6	10	15	20	20
	5.1 - 7.0	10	10	15	20	20	25
	7.1 - 12.0	15	15	20	25	25	-
	12.1 - 20.0	20	20	25	-	-	-
230	0 - 2.0	6	6	6	6	6	6
	2.1 - 3.4	6	6	6	6	6	6
	3.5 - 5.0	6	6	6	6	10	15
	5.1 - 7.0	10	10	10	10	15	15
	7.1 - 12.0	15	15	15	15	20	20
	12.1 - 20.0	20	20	20	20	25	-

Assembly and adjustment



Prior to assembly and adjustment always unplug the tool.

Mounting and removing the guard (fig. B)

- Place the angle grinder on a table, spindle up.
- Release the clamping lock (6) and hold the guard (4) over the tool as shown.
- Align the lugs (7) with the notches (8).
- Press the guard down and rotate it to the required position.
- If required, increase the clamping force by tightening the screw (9).
- Tighten the clamping lock.
- To remove the guard, release the clamping lock.



Never use the tool without the guard in place.

Fitting and removing a grinding or cutting disc (fig. C1 - C3)

- Place the tool on a table, guard up.

ENGLISH

- Fit the inner flange (10) correctly onto the spindle (11) (fig. C1).
- Place the disc (12) on the flange (10) (fig. C2). When fitting a disc with a raised center, make sure that the raised centre (13) is facing the flange (10).
- Screw the outer flange (14) onto the spindle (11) (fig. C3):
 - the ring on the flange (14) must face towards the disc when fitting a grinding disc (A);
 - the ring on the flange (14) must face away from the disc when fitting a cutting disc (B).
- Press the spindle lock (3) and rotate the spindle (11) until it locks in position (fig. C2)
- Tighten the flange (14) with the two-pin spanner supplied.
- Release the spindle lock.
- To remove the disc, loosen the flange (14) with the two-pin spanner.



Do not use a damaged disc.

Mounting the side handle (fig. D1 & D2)

- For grinding, screw the side handle (5) tightly into one of the holes (15) on either side of the gear case (fig. D1).
- For cutting, screw the side handle (5) tightly into the top hole (16) or into one of the holes (17) on either side of the gear case (fig. D2).

D28423/D28432C - Rotating the main handle (fig. E1 & E2)

The rotary handle facilitates a more comfortable handling in cutting applications with the side handle mounted in the top hole.

The rotary handle has locations at 30°, 60° and 90° both left and right.

- Pull the spring-loaded tab (18) to unlock the rotary mechanism (fig. E1). Hold the tab in the pulled-out position.
- Rotate the handle (19) into the desired position (fig. E2).
- Release the tab and lock it in position.
- Check that the rotary mechanism is locked.



Do not use the tool unless the rotary handle is in the locked position.

Instructions for use



- Always observe the safety instructions and applicable regulations.
- Ensure all materials to be ground or cut are secured in place.
- Apply only a gentle pressure to the tool. Do not exert side pressure on the disc.
- Avoid overloading. Should the tool become hot, let it run a few minutes under no load condition.

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.
- Make sure the disc or wheel rotates in the direction of the arrows on the accessory and the tool.

Switching on and off (fig. A)

The on/off switch is equipped with an unlocking switch or a locking switch for continuous operation.

On/off switch (1) with locking switch (2)

- To run the tool, depress the locking switch (2) and subsequently operate the on/off switch (1).
- Release the locking switch (2).
- To stop the tool, press the on/off switch again.

On/off switch (1) with unlocking switch (2) (France only)

- To run the tool, depress the unlocking switch (2) and subsequently operate the on/off switch (1).
- Release the unlocking switch (2).
- To stop the tool, release the switch.



Do not switch the tool on or off when under load.

Consult your dealer for further information on the appropriate accessories.

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.



Lubrication

Your power tool requires no additional lubrication.



Cleaning

Keep the ventilation slots clear and regularly clean the housing with a soft cloth.

Protecting the environment



Separate collection. This product must not be disposed of with normal household waste.

Should you find one day that your DEWALT product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.



Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

DEWALT provides a facility for the collection and recycling of DEWALT products once they have reached the end of their working life. To take advantage of this service please return your product to any authorised repair agent who will collect them on our behalf.

You can check the location of your nearest authorised repair agent by contacting your local DEWALT office at the address indicated in this manual. Alternatively, a list of authorised DEWALT repair agents and full details of our after-sales service and contacts are available on the Internet at: www.2helpU.com.

GUARANTEE

• 30 DAY NO RISK SATISFACTION GUARANTEE •

If you are not completely satisfied with the performance of your DEWALT tool, simply return it within 30 days, complete as purchased, to the point of purchase, for a full refund or exchange. Proof of purchase must be produced.

• ONE YEAR FREE SERVICE CONTRACT •

If you need maintenance or service for your DEWALT tool, in the 12 months following purchase, it will be undertaken free of charge at an authorized DEWALT repair agent. Proof of purchase must be produced. Includes labour and spare parts for Power Tools. Excludes accessories.

• ONE YEAR FULL WARRANTY •

If your DEWALT product becomes defective due to faulty materials or workmanship within 12 months from the date of purchase, we guarantee to replace all defective parts free of charge or, at our discretion, replace the unit free of charge provided that:

- The product has not been misused.
- Repairs have not been attempted by unauthorized persons.
- Proof of purchase date is produced.

This guarantee is offered as an extra benefit and is additional to consumers statutory rights.

For the location of your nearest authorized DEWALT repair agent, please use the appropriate telephone number on the back of this manual. Alternatively, a list of authorized DEWALT repair agents and full details on our after-sales service are available on the Internet at www.2helpU.com.

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Deutschland	DEWALT Richard-Klinger-Straße 65510 Idstein	Tel: 06126-21-1 Fax: 06126-21-2770 www.dewalt.de
Ελλάς	Black & Decker (Hellas) S.A. Στραβωνος 7 & Βουλιαγμένης 159 Γλυφάδα 16674, Αθήνα	Τηλ: (01) 8981-616 Φαξ: (01) 8983-570 Service: (01) 8982-630
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