DEWALT DCG416B

DEWALT FLEXVOLT ADVANTAGE 20V MAX* Angle Grinder Instruction Manual

Model: DCG416B | Brand: DEWALT

Introduction

The DEWALT FLEXVOLT ADVANTAGE 20V MAX* Angle Grinder (DCG416B) is a powerful brushless tool designed for cutting, grinding, and surface preparation tasks. Featuring FLEXVOLT ADVANTAGE tool technology, it delivers enhanced power when paired with FLEXVOLT batteries. This grinder is equipped with advanced safety features including a Kickback Brake and E-CLUTCH System, ensuring user protection and efficient operation. This manual provides essential information for the safe and effective use, maintenance, and troubleshooting of your DEWALT angle grinder.



Figure 1: DEWALT FLEXVOLT ADVANTAGE 20V MAX* Angle Grinder (DCG416B)

This image shows the complete DEWALT FLEXVOLT ADVANTAGE 20V MAX* Angle Grinder, highlighting its compact design and ergonomic paddle switch. The tool is yellow and black, characteristic of DEWALT products, with a side handle attached for improved

control.

General Safety Information

Always follow basic safety precautions when using power tools to reduce the risk of fire, electric shock, and personal injury. Read all instructions carefully before operation.

- Wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, and gloves.
- Ensure the work area is clean, well-lit, and free from obstructions.
- Keep bystanders, children, and visitors away while operating the tool.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- Always disconnect the battery pack before making any adjustments, changing accessories, or storing the tool.
- Use the correct accessory for the application. Ensure the accessory is rated for the tool's speed.
- Maintain a firm grip on the tool with both hands during operation.
- Avoid accidental starting. Ensure the switch is in the off-position before inserting the battery pack.

Setup

Included Components

Your DEWALT DCG416B Angle Grinder package includes the following items:

- (1) DCG416 20V MAX* 4-1/2 in.-5 in. Brushless Cordless Paddle Switch Small Angle Grinder with FLEXVOLT® ADVANTAGE™
- (1) Side Handle
- (1) 4-1/2 in. Type 27 Guard
- (1) Wrench
- (1) Inner Flange
- (1) Outer Flange



Figure 2: Included Components

This image visually lists the components included with the DCG416 grinder, such as the tool itself, side handle, guard, inner and outer flanges, and wrench.

Battery Installation

The DCG416B is compatible with all DEWALT 20V MAX* and FLEXVOLT Batteries. For optimal performance and up to 54% more power, use a DEWALT FLEXVOLT battery (sold separately).

1. Align the battery pack with the battery port on the tool.
2. Slide the battery pack into the tool until it locks securely in place.
3. To remove, press the battery release button and pull the battery pack out.

Attaching the Side Handle

The side handle can be installed in three different positions for optimal control and comfort, depending on the application.

1. Screw the side handle clockwise into one of the threaded holes on the gear case until it is tight.
2. Ensure the handle is securely fastened before operating the grinder.



Figure 3: Angle Grinder with Side Handle Attached

This image displays the DEWALT angle grinder with its side handle securely attached, demonstrating a typical setup for operation.

Installing and Removing Grinding/Cutting Wheels

This grinder is designed to accommodate 4-1/2 inch to 5 inch discs. Always use the appropriate guard for the disc size and type.

1. Ensure the tool is turned off and the battery pack is removed.
2. Position the guard for the desired operation (grinding or cutting).
3. Place the inner flange onto the spindle.
4. Place the grinding or cutting wheel onto the inner flange, ensuring it sits flush.
5. Thread the outer flange onto the spindle.
6. Press the spindle lock button and use the wrench to tighten the outer flange securely.
7. To remove, reverse these steps.

Operating Instructions

Powering On/Off (Paddle Switch)

The DCG416B features a paddle switch for easy activation and deactivation.

- To turn on the grinder, depress the paddle switch.
- To turn off the grinder, release the paddle switch.

E-Switch Protection: In the event of a power outage or unexpected shutdown, the trigger switch must be cycled (turned off and on) to restart the tool, preventing accidental startup.

Advanced Safety Features



Figure 4: Key Safety Features

This diagram illustrates the location of the Kickback Brake, Paddle Switch, and E-CLUTCH system on the DEWALT angle grinder, highlighting its PERFORM & PROTECT features.

- **Kickback Brake:** This feature engages with maximum force to quickly stop the wheel and shut off the grinder when a bind-up occurs, significantly reducing the risk of kickback.
- **E-CLUTCH System:** The E-CLUTCH system detects a pinch/stall and shuts down the motor in under a tenth of a second, protecting both the user and the tool from damage.

General Operation Tips

- Allow the tool to reach full speed before beginning any work.
- Apply light, consistent pressure. Do not force the tool.
- Always direct sparks away from yourself and others.
- For cutting applications, use a cutting wheel and ensure the material is securely clamped.
- For grinding applications, use a grinding wheel and maintain a consistent angle.

Maintenance

Regular maintenance ensures the longevity and safe operation of your DEWALT angle grinder.

- **Cleaning:** Regularly clean the tool's ventilation slots to prevent overheating. Use compressed air to blow out dust and debris. Do not use solvents.
- **Accessory Inspection:** Before each use, inspect grinding and cutting wheels for cracks, chips, or excessive wear. Replace damaged accessories immediately.
- **Guard Inspection:** Ensure the guard is securely attached and undamaged. Never operate the grinder without the appropriate guard in place.
- **Battery Care:** Store batteries in a cool, dry place. Do not expose them to extreme temperatures. Charge batteries fully before storage and periodically during long storage periods.
- **Tool Connect Chip (Optional):** If using the Tool Connect Chip DCE042 (sold separately), ensure it is properly installed and connected to the Tool Connect Site Manager app for asset management.

Troubleshooting

Problem	Possible Cause	Solution
Tool does not start.	Battery not charged or improperly inserted; E-Switch Protection activated.	Ensure battery is fully charged and properly inserted. If E-Switch Protection is active, release and re-depress the paddle switch.
Tool stops during operation.	Overload (E-CLUTCH activated); Battery low; Kickback Brake engaged.	Reduce pressure on the tool. Check battery charge. If Kickback Brake engaged, clear obstruction and restart.
Excessive vibration.	Damaged or improperly installed wheel; Loose flanges.	Inspect wheel for damage and replace if necessary. Ensure inner and outer flanges are securely tightened.
Reduced power.	Low battery charge; Using a non-FLEXVOLT battery for demanding tasks.	Recharge battery. For demanding applications, use a FLEXVOLT battery for increased power output.

Specifications

Specification	Value
Brand	DEWALT
Model Number	DCG416B
Voltage	20 Volts
Wattage	1550 watts

Specification	Value
Maximum Rotational Speed	9000 RPM
Product Dimensions	13.11"L x 6.2"W x 4.9"H
Item Weight	1 Pounds
Power Source	Battery Powered
Special Features	Lightweight, Kickback Brake, E-CLUTCH System, E-Switch Protection, Tool Connect Chip Ready

Warranty and Support

For warranty information, technical support, or service inquiries regarding your DEWALT FLEXVOLT ADVANTAGE 20V MAX* Angle Grinder, please refer to the warranty card included with your product or visit the official DEWALT website. You can also visit the DEWALT Store on Amazon for additional product information and resources.
DEWALT is committed to providing high-quality tools and excellent customer service. Always use genuine DEWALT replacement parts and accessories to ensure optimal performance and safety.

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