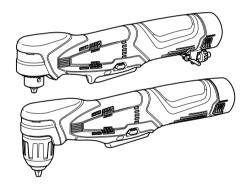
# **INSTRUCTION MANUAL**



# **Cordless Angle Drill**

DA330D DA331D



013258

#### **ENGLISH (Original instructions)**

# **SPECIFICATIONS**

Model		DA330D	DA331D	
Capacities	Steel	10 mm	10 mm	
	Wood	12 mm	12 mm	
No load speed (min <sup>-1</sup> )		0 - 800	0 - 800	
Overall length		298 mm	310 mm	
Net weight		1.1 kg	1.1 kg	
Rated voltage		D.C. 10.8 V	D.C. 10.8 V	

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- · Specifications and battery cartridge may differ from country to country.
- Weight, with battery cartridge, according to EPTA-Procedure 01/2003

#### FND004-4

ENG900-1

# **Symbols**

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.



Read instruction manual.

· Only for EU countries

Do not dispose of electric equipment or battery pack together with household waste material!

In observance of European Directive 2002/96/EC on waste electric and electronic equipment, 2006/66/EC on batteries and accumulators and waste batteries and accumulators and their implementation in accordance with national laws, electric equipment and battery pack that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

ENE032-1

#### Intended use

The tool is intended for drilling in wood, metal and plastic.

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#### Noise

The typical A-weighted noise level determined according to EN60745:

Sound pressure level  $(L_{pA})$ : 70 dB(A) or less Uncertainty (K): 3 dB(A)

The noise level under working may exceed 80 dB(A)

Wear ear protection

#### Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745:

Work mode: drilling into metal Vibration emission  $(a_{h,D})$ : 2.5 m/s $^2$  or less Uncertainty (K): 1.5 m/s $^2$ 

ENG901-1

- The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another
- The declared vibration emission value may also be used in a preliminary assessment of exposure.

#### MARNING.

- The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.
- Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

ENH101-16

#### For European countries only

### **EC Declaration of Conformity**

We Makita Corporation as the responsible manufacturer declare that the following Makita machine(s):

Designation of Machine: Cordless Angle Drill

Model No./ Type: DA330D, DA331D are of series production and

Conforms to the following European Directives:

2006/42/EC

And are manufactured in accordance with the following standards or standardised documents:

EN60745

The technical documentation is kept by:
Makita International Europe Ltd.
Technical Department,
Michigan Drive, Tongwell,
Milton Keynes, Bucks MK15 8JD, England

8.5.2012

000230



Makita Corporation 3-11-8, Sumiyoshi-cho, Anjo, Aichi, 446-8502, JAPAN

GFA006-2

# General Power Tool Safety Warnings

MARNING Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

# Save all warnings and instructions for future reference.

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

#### Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **Electrical safety**

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of an GFCI reduces the risk of electric shock.

# Personal safety

- 10. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- 12. 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.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 15. 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.
- 16. 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 dustrelated hazards.

#### Power tool use and care

- 17. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- 19. 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.
- 20. 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.
- 21. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly
  maintained cutting tools with sharp cutting edges
  are less likely to bind and are easier to control.
- 23. 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.

#### Battery tool use and care

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

#### Service

- 28. 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.
- Follow instruction for lubricating and changing accessories.
- Keep handles dry, clean and free from oil and grease.

#### GER051-4

# CORDLESS DRILL SAFETY WARNINGS

- Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.
- 2. Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Always be sure you have a firm footing.
   Be sure no one is below when using the tool in high locations.
- 4. Hold the tool firmly.
- 5. Keep hands away from rotating parts.
- Do not leave the tool running. Operate the tool only when hand-held.
- Do not touch the drill bit or the workpiece immediately after operation; they may be extremely hot and could burn your skin.
- Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.

# SAVE THESE INSTRUCTIONS.

# **∆WARNING**:

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

FNC009-1

# IMPORTANT SAFETY INSTRUCTIONS

# FOR BATTERY CARTRIDGE

- Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
- 2. Do not disassemble battery cartridge.
- If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
- If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.
- 5. Do not short the battery cartridge:
  - (1) Do not touch the terminals with any conductive material.
  - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
  - (3) Do not expose battery cartridge to water or rain.

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.

- Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).
- Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
- 8. Be careful not to drop or strike battery.
- 9. Do not use a damaged battery.

# SAVE THESE INSTRUCTIONS.

# Tips for maintaining maximum battery life

- Charge the battery cartridge before completely discharged.
  - Always stop tool operation and charge the battery cartridge when you notice less tool power.
- 2. Never recharge a fully charged battery cartridge.
- Overcharging shortens the battery service life.

  3. Charge the battery cartridge with room temperature at 10 ° C 40 ° C (50 ° F 104 ° F). Let a hot battery cartridge cool down before charging it.

# **FUNCTIONAL DESCRIPTION**

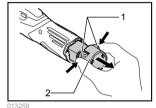
# **∆CAUTION**:

 Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

# Installing or removing battery cartridge

#### **∆CAUTION:**

- Always switch off the tool before installing or removing of the battery cartridge.
- Hold the tool and the battery cartridge firmly when installing or removing battery cartridge.
   Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.



- 1. Button
- Battery cartridge

To remove the battery cartridge, withdraw it from the tool while pressing the buttons on both sides of the cartridge.

To install the battery cartridge, hold it so that the battery cartridge front shape fits to that of the battery installment opening and slip it into place. Insert it all the way until it locks in place with a little click.

#### ACAUTION:

- Always insert the battery cartridge all the way until it locks in place. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
- Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

### **Battery protection system**

The tool is equipped with a battery protection system. This system automatically cuts off power to the motor to extend battery life.

The tool will automatically stop during operation if the tool and/or battery are placed under one of the following conditions:

#### · Overloaded:

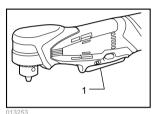
The tool is operated in a manner that causes it to draw an abnormally high current.

In this situation, release the switch trigger on the tool and stop the application that caused the tool to become overloaded. Then pull the switch trigger again to restart.

Low battery voltage:

The remaining battery capacity is too low and the tool will not operate. If you pull the switch trigger, the motor runs again but stops soon. In this situation, remove and recharge the battery.

# Switch action



1. Switch trigger

# **∆CAUTION**:

 Before inserting the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

To start the tool, simply pull the switch trigger. Tool speed is increased by increasing pressure on the switch trigger. Release the switch trigger to stop.

# **∆CAUTION**:

 Be sure to hold the tool firmly before the tool is switched off.

# Lighting up the front lamp For model DA330D



1. Lamp

#### For model DA331D



1. Lamp

13260

# ACAUTION:

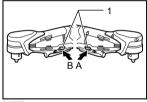
 Do not look in the light or see the source of light directly.

Pull the switch trigger to light up the lamp. The lamp keeps on lighting while the switch trigger is being pulled. The lamp goes out just after the switch trigger is released.

#### NOTE:

Use a dry cloth to wipe the dirt off the lens of lamp.
 Be careful not to scratch the lens of lamp, or it may lower the illumination.

# Reversing switch action



1. Reversing switch

013255

This tool has a reversing switch to change the direction of rotation. Depress the reversing switch lever from the A side for clockwise rotation or from the B side for counterclockwise rotation.

When the reversing switch lever is in the neutral position, the switch trigger cannot be pulled.

# **∆CAUTION:**

- Always check the direction of rotation before operation.
- Use the reversing switch only after the tool comes to a complete stop. Changing the direction of rotation before the tool stops may damage the tool.
- When not operating the tool, always set the reversing switch lever to the neutral position.

# **ASSEMBLY**

# **∆CAUTION**:

Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

# Installing or removing drill bit For model DA330D



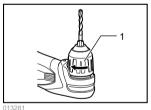
1. Chuck key

To install the bit, place it in the chuck as far as it will go. Tighten the chuck by hand. Place the chuck key in each of the three holes and tighten clockwise. Be sure to tighten all three chuck holes evenly.

To remove the bit, turn the chuck key counterclockwise in just one hole, then loosen the chuck by hand.

After use, return the chuck key to the storage cavity on the tool

#### For model DA331D

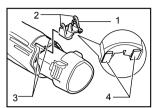


1. Sleeve

tool firmly and the sleeve Hold the turn counterclockwise to open the chuck jaws. Place the bit in the chuck as far as it will go. Hold the tool firmly turn the sleeve clockwise to tighten the chuck.

To remove the bit, hold the tool firmly turn the sleeve counterclockwise.

# Chuck key holder For model DA330D



- 1. Chuck key holder
- 2. Hook portion
- 3. Slot
- 4 Rail

To install the chuck key holder, point the hook portion of it toward the housing. Then insert the rails of the chuck key holder to the slots of the tool housing until it locks in place with a little click.

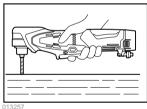
To remove, hold the chuck key holder and then take it out

# **OPERATION**

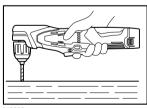
#### **∆CAUTION:**

Hold the tool firmly with one hand on the gripping part of the tool when performing the tool.

#### For model DA330D



For model DA331D



# **Drilling operation**

# Drilling in metal

To prevent the bit from slipping when starting a hole, make an indentation with a center-punch and hammer at the point to be drilled. Place the point of the bit in the indentation and start drilling.

Use a cutting lubricant when drilling metals. The exceptions are iron and brass which should be drilled dry.

# ACAUTION:

- Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your bit, decrease the tool performance and shorten the service life of the tool.
- There is a tremendous force exerted on the tool/bit at the time of hole break through. Hold the tool firmly and exert care when the bit begins to break through the workpiece.
- A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hold it firmly.
- Always secure small workpieces in a vise or similar hold-down device.
- If the tool is operated continuously until the battery cartridge has discharged, allow the tool to rest for 15 minutes before proceeding with a fresh battery.

# **MAINTENANCE**

# **∆CAUTION**:

- Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.
- Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

# **OPTIONAL ACCESSORIES**

# **∆CAUTION**:

 These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Drill bits
- Chuck key
- Chuck key holder
- Plastic carrying case
- Makita genuine battery and charger

#### NOTE:

 Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.


Makita Corporation Anjo, Aichi, Japan

www.makita.com