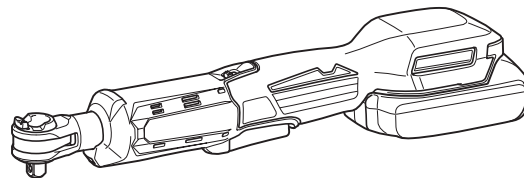


EN	Cordless Ratchet Wrench	INSTRUCTION MANUAL	4
FR	Clé à cliquet sans fil	MANUEL D'INSTRUCTIONS	9
DE	Akku-Ratschenschrauber	BETRIEBSANLEITUNG	14
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## DWR180



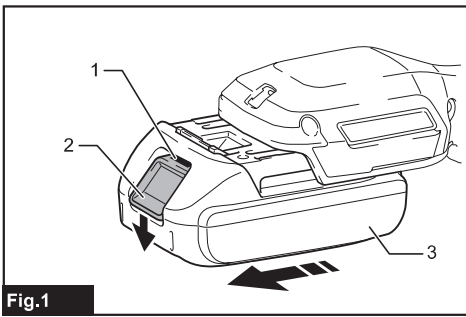


Fig.1

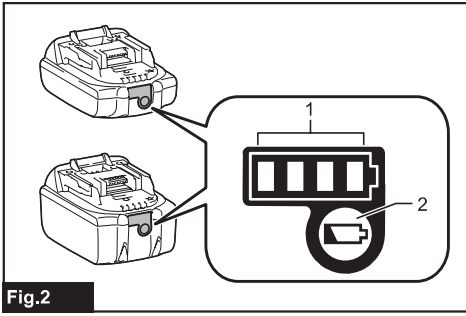


Fig.2

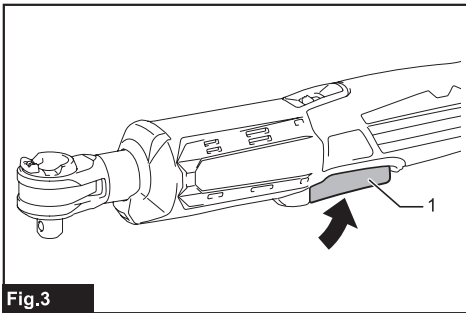


Fig.3

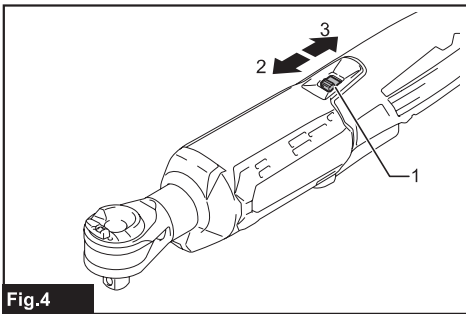


Fig.4

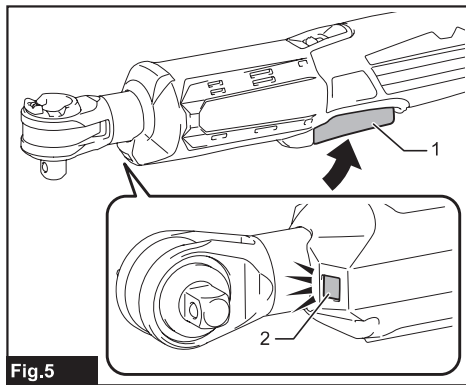


Fig.5

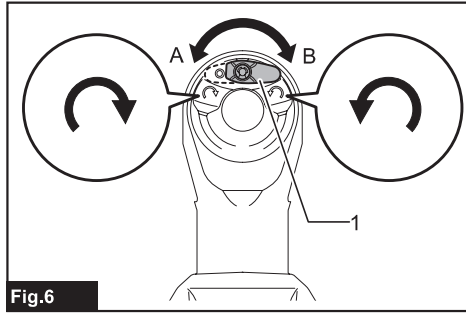


Fig.6

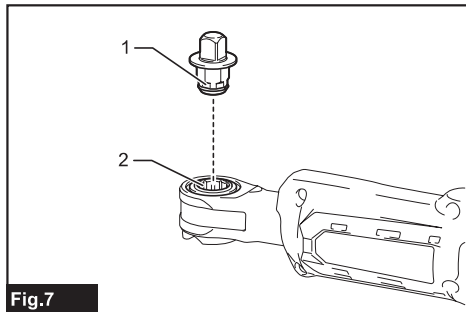


Fig.7

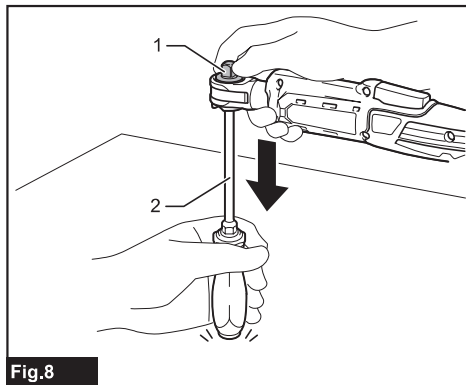


Fig.8

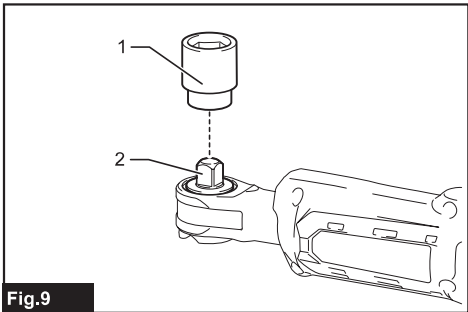


Fig.9

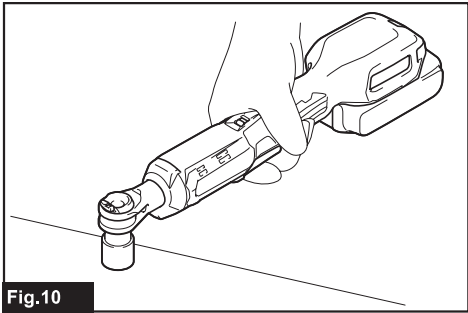


Fig.10

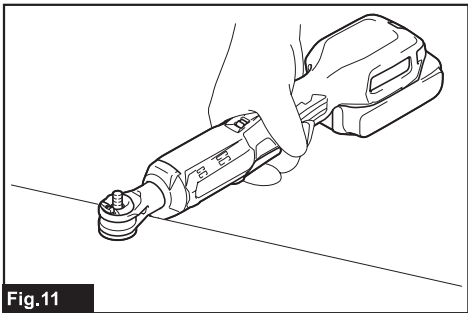


Fig.11

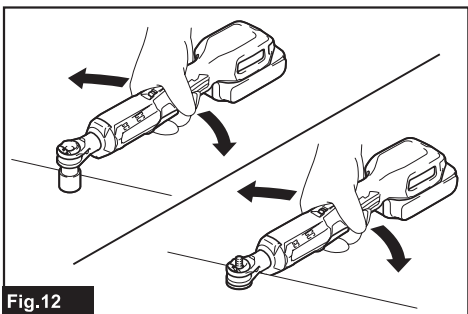


Fig.12

## SPECIFICATIONS

<b>Model:</b>		<b>DWR180</b>
Fastening capacities (with manual retightening)	Standard bolt	M5 - M12
	High tensile bolt	M5 - M10
Square drive	6.35 mm, 9.5 mm	
No load speed	0 - 800 min <sup>-1</sup>	
Maximum fastening torque	47.5 N•m	
Overall length	369 mm	
Rated voltage	D.C. 18 V	
Net weight	1.2 - 1.6 kg	

- 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.
- The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heaviest combinations, according to EPTA-Procedure 01/2014, are shown in the table.

### Applicable battery cartridge and charger

Battery cartridge	BL1815N / BL1820B / BL1830B / BL1840B / BL1850B / BL1860B
Charger	DC18RC / DC18RD / DC18RE / DC18SD / DC18SE / DC18SF / DC18SH

- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

**⚠ WARNING: Only use the battery cartridges and chargers listed above.** Use of any other battery cartridges and chargers may cause injury and/or fire.

### Intended use

The tool is intended for fastening bolts and nuts.

### Noise

The typical A-weighted noise level determined according to EN62841-2-2:

Sound pressure level ( $L_{pA}$ ) : 74 dB(A)  
Uncertainty (K) : 3 dB(A)

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

**NOTE:** The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

**NOTE:** The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

**⚠ WARNING: Wear ear protection.**

**⚠ WARNING: The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

**⚠ WARNING: 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).**

### Vibration

The vibration total value (tri-axial vector sum) determined according to EN62841-2-2:

Work mode: fastening  
Vibration emission ( $a_w$ ) : 2.5 m/s<sup>2</sup>  
Uncertainty (K) : 1.5 m/s<sup>2</sup>

**NOTE:** The declared vibration total value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

**NOTE:** The declared vibration total value(s) may also be used in a preliminary assessment of exposure.

**⚠ WARNING: The vibration emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

**⚠ WARNING: 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).**

### EC Declaration of Conformity

*For European countries only*

The EC declaration of conformity is included as Annex A to this instruction manual.

# SAFETY WARNINGS

## 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.

## Cordless Ratchet Wrench safety warnings

1. **Hold the power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
2. **Hold the tool firmly.**
3. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
4. **Wear ear protectors.**
5. **Check the impact socket carefully for wear, cracks or damage before installation.**
6. **Keep hands away from rotating parts.**
7. **Do not touch the ratchet head, impact socket, bolt, nut or the workpiece immediately after long time operation.** They may be extremely hot and could burn your skin.

### 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.

## Important safety instructions for battery cartridge

1. **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 or tamper the battery cartridge.** It may result in a fire, excessive heat, or explosion.
3. **If operating time has become excessively shorter, stop operating immediately.** It may result in a risk of overheating, possible burns and even an explosion.
4. **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.
6. **Do not store and use the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **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. **Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge.** Such conduct may result in a fire, excessive heat, or explosion.
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.** For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.
11. **When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. Follow your local regulations relating to disposal of battery.**
12. **Use the batteries only with the products specified by Makita.** Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.
13. **If the tool is not used for a long period of time, the battery must be removed from the tool.**
14. **During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.**
15. **Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.**
16. **Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge.** It may result in poor performance or breakdown of the tool or battery cartridge.
17. **Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near high-voltage electrical power lines.** It may result in a malfunction or breakdown of the tool or battery cartridge.
18. **Keep the battery away from children.**

### SAVE THESE INSTRUCTIONS.

**⚠ CAUTION:** Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

## Tips for maintaining maximum battery life

1. 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.
4. When not using the battery cartridge, remove it from the tool or the charger.
5. Charge the battery cartridge if you do not use it for a long period (more than six months).

## 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.

**CAUTION:** 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.

► Fig.1: 1. Red indicator 2. Button 3. Battery cartridge

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, it is not locked completely.

**CAUTION:** Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

**CAUTION:** Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

## Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off the power to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

### Overload protection

This protection works when the tool is operated in a manner that causes it to draw an abnormally high current. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

### Overheat protection

When the tool is overheated, the tool stops automatically and the lamp starts blinking. In this situation, let the tool and battery cool before turning the tool on again.

### Overdischarge protection

This protection works when the remaining battery capacity gets low. In this situation, remove the battery from the tool and charge the battery.

## Indicating the remaining battery capacity

Only for battery cartridges with the indicator

► Fig.2: 1. Indicator lamps 2. Check button

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

Indicator lamps			Remaining capacity
Lighted	Off	Blinking	
■	□	▬	75% to 100%
■	■	□	50% to 75%
■	□	□	25% to 50%
■	□	□	0% to 25%
▬	□	□	Charge the battery.
■	■	□	The battery may have malfunctioned.
□	□	■	

**NOTE:** Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

**NOTE:** The first (far left) indicator lamp will blink when the battery protection system works.

## Switch action


**CAUTION:** Before installing the battery cartridge into the tool, always check to see that the switch lever actuates properly and returns to the "OFF" position when released.


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

► **Fig.3:** 1. Switch lever


**NOTE:** The tool automatically stops when you keep pulling the switch trigger for about 1 minute.

To prevent the switch lever from accidentally pulled, the lock lever is provided.

When the lock lever is in the lock position , the switch lever cannot be actuated.

When the lock lever is in the unlock position , the switch lever can be actuated.

► **Fig.4:** 1. Lock lever 2. Lock 3. Unlock

**CAUTION:** When not operating the tool, always slide the lock lever to the lock position .

## Lighting up the front lamp

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

Pull the switch lever to light up the lamp. The lamp keeps on lighting while the switch lever is being pulled. The light automatically goes out approximately 10 seconds after the switch lever is released.

► **Fig.5:** 1. Switch lever 2. Lamp

**NOTICE:** When the tool is overheated, the lamp blinks. Cool down the tool fully before operating the tool again.

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

## Reversing lever action

**CAUTION:** Always check the direction of rotation before operation.

**CAUTION:** Use the reversing lever only after the tool comes to a complete stop. Changing the direction of rotation before the tool stops may damage the tool.

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

Make sure that the reversing lever is fully turned with a click.

► **Fig.6:** 1. Reversing lever

## 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 socket adaptor

To install the socket adaptor, push it into the adaptor hole until it locks into place.

► **Fig.7:** 1. Socket adaptor 2. Adaptor hole

To remove the socket adaptor, insert a stick like a screwdriver into the backside of the socket adaptor, and then tap it gently.

► **Fig.8:** 1. Socket adaptor 2. Screwdriver

**NOTICE:** During removal procedure, keep holding the socket adaptor to prevent it from falling off from the tool.

### Installing or removing socket

**CAUTION:** Before operation, make sure that the socket is properly locked onto the socket adaptor. Incomplete attachment of the socket may cause injury.

**NOTICE:** Always use the correct size socket for bolt/nut. An incorrect size socket will result in inconsistent fastening torque and/or damage to the bolt/nut.

To install the socket, push it onto the socket adaptor until it locks into place. To remove the socket, simply pull it off.

► **Fig.9:** 1. Socket 2. Socket adaptor

## OPERATION

**CAUTION:** Hold the tool firmly especially when the bolt/nut reaches the seating position.

The socket stops rotating and the motor reaction generate instant backlash to rotate the tool.

**NOTICE:** Hold the tool pointed straight at the bolt/nut.

Hold the tool firmly and place the socket over the bolt/nut. Turn the tool on and fasten. When the bolt/nut reaches the seating position, the tool stops automatically.

► **Fig.10**

The tool also works without socket. The adaptor hole can fasten M8 (5/16") bolt/nut. (works as 13mm socket)

► **Fig.11**

## Using as hand tool

You can use the tool as a hand ratchet wrench by turning the tool in the direction arrows as illustrated. In particular when loosening a stiff bolt/nut, loosen it by hand first then turn the tool on.

► Fig.12

**NOTICE:** Excessive fastening torque may damage the bolt/nut, the socket or the tool.

## MAINTENANCE

**CAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.

**NOTICE:** 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 or Factory 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.

- Socket
- Socket adaptor
- 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.