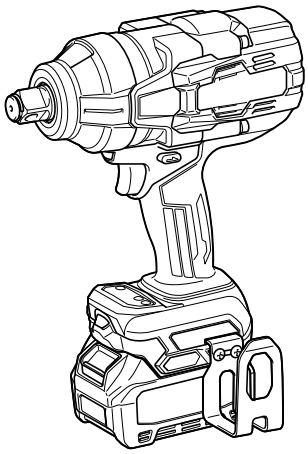
EN	Cordless Impact Wrench	INSTRUCTION MANUAL	5
SV	Sladdlös mutterdragare	BRUKSANVISNING	13
NO	Batteridrevet slagskrutrekker	BRUKSANVISNING	21
FI	Akkukäyttöinen iskevä mutterinväännin	KÄYTTÖOHJE	29
DA	Elektronisk akku slagnøgle	BRUGSANVISNING	37
LV	Bezvada triecienuzgriežņatslēga	LIETOŠANAS INSTRUKCIJA	46
LT	Belaidis smūginis veržliasukis	NAUDOJIMO INSTRUKCIJA	55
ET	Juhtmeta löökmutrivõti	KASUTUSJUHEND	64
RU	Аккумуляторный ударный гайковерт	РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ	72

TW001G
TW002G
TW003G



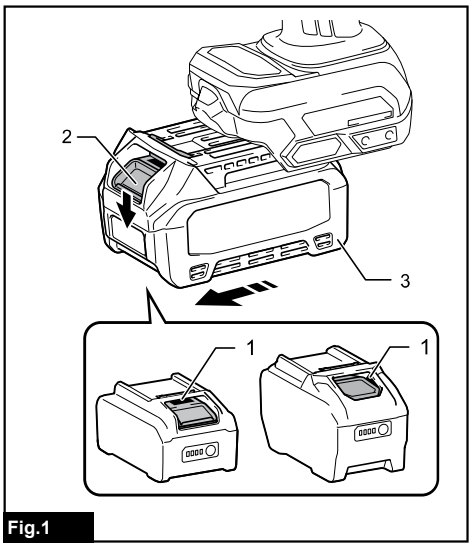


Fig.1

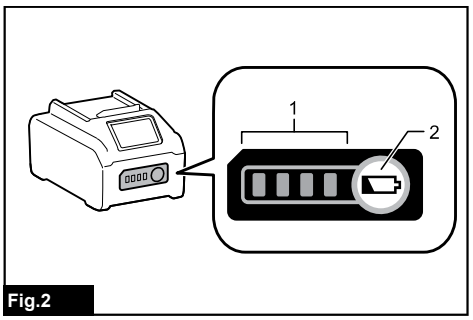


Fig.2

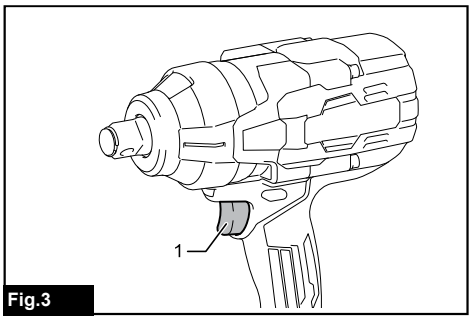


Fig.3

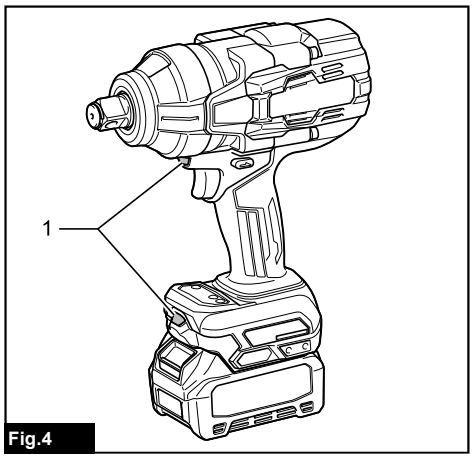


Fig.4

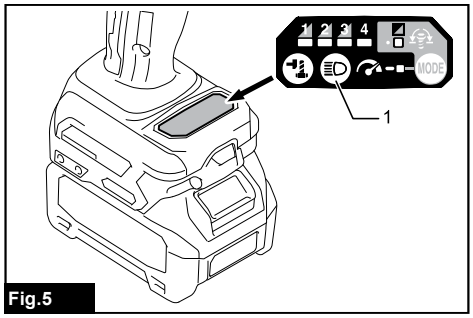


Fig.5

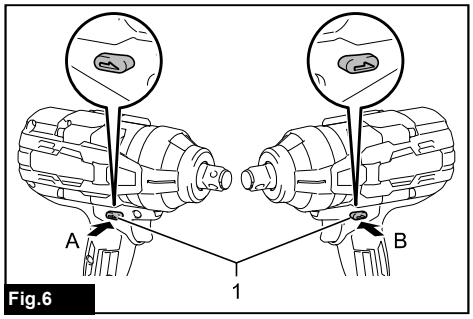


Fig.6

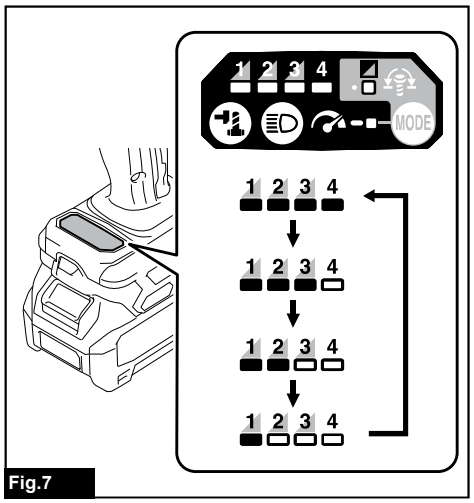


Fig.7

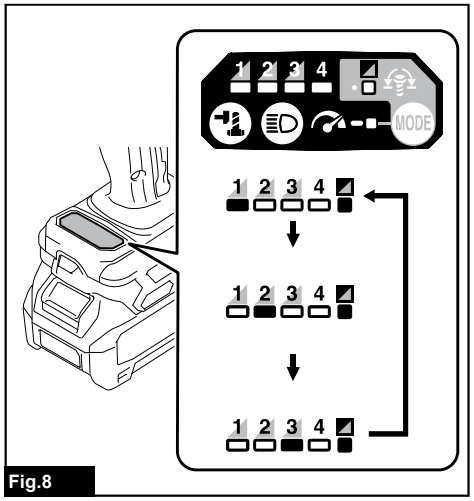


Fig.8

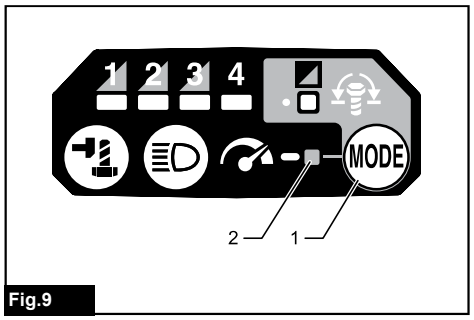


Fig.9

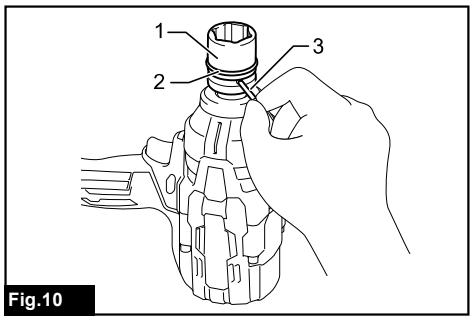


Fig.10

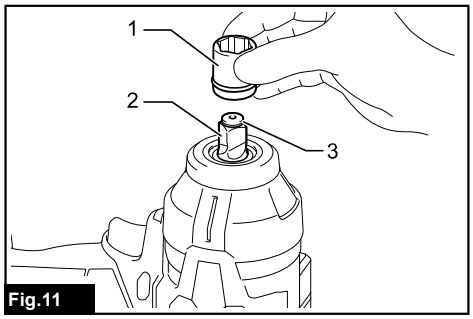


Fig.11

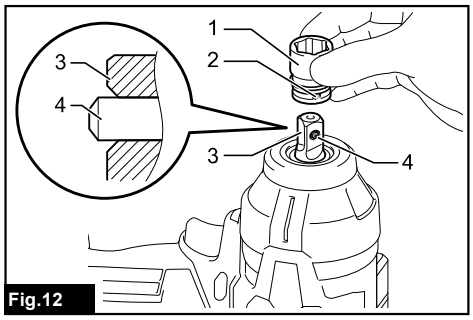


Fig.12

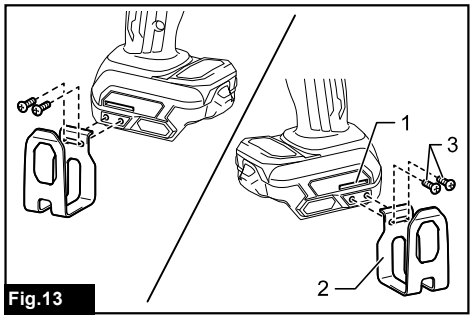


Fig.13

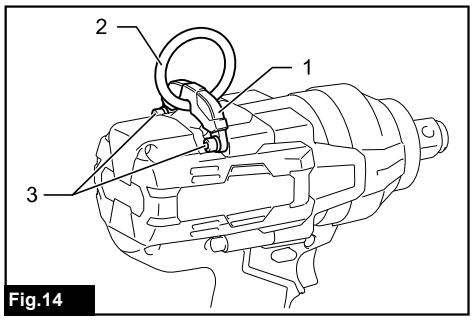
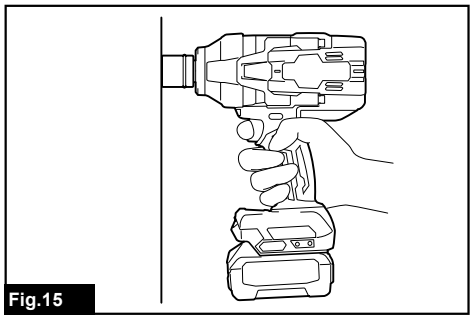


Fig.14


Fig.15

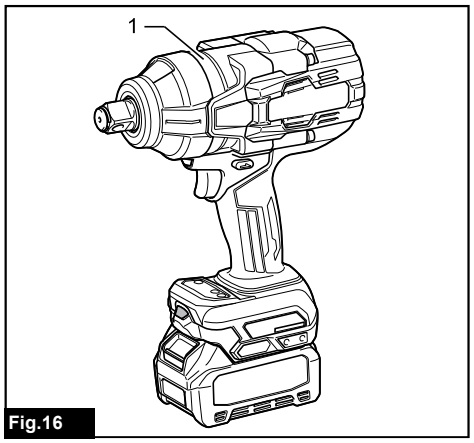


Fig.16

SPECIFICATIONS

Model:		TW001G	TW002G	TW003G
Fastening capacities	Standard bolt	M12 - M36		
	High tensile bolt	M10 - M27		
Square drive		19.0 mm	12.7 mm	
No load speed (RPM)	Max impact mode (4)	0 - 1,800 min^{-1}		
	Hard impact mode (3)	0 - 1,400 min^{-1}	0 - 1,000 min^{-1}	0 - 1,200 min^{-1}
	Medium impact mode (2)	0 - 1,150 min^{-1}	0 - 900 min^{-1}	0 - 1,000 min^{-1}
	Soft impact mode (1)	0 - 950 min^{-1}	0 - 850 min^{-1}	0 - 800 min^{-1}
Impacts per minute	Max impact mode (4)	0 - 2,500 min^{-1}	0 - 2,400 min^{-1}	
	Hard impact mode (3)	0 - 2,400 min^{-1}	0 - 2,000 min^{-1}	0 - 2,300 min^{-1}
	Medium impact mode (2)	0 - 2,200 min^{-1}	0 - 1,800 min^{-1}	0 - 2,000 min^{-1}
	Soft impact mode (1)	0 - 1,900 min^{-1}	0 - 1,700 min^{-1}	0 - 1,600 min^{-1}
Overall length		217 mm	213 mm	
Rated voltage		D.C. 36 V - 40 V max		
Net weight		3.9 - 5.1 kg		3.8 - 5.0 kg

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heaviest combination are shown in the table.

Applicable battery cartridge and charger

Battery cartridge	BL4020* / BL4025* / BL4040* / BL4040F* / BL4050F / BL4080F * : Recommended battery
Charger	DC40RA / DC40RB / DC40RC / DC40WA

- 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:

Model TW001G
Sound pressure level (L_{pA}) : 103 dB (A)
Sound power level (L_{WA}) : 111 dB (A)
Uncertainty (K) : 3 dB (A)

Model TW002G
Sound pressure level (L_{pA}) : 95 dB(A)
Sound power level (L_{WA}) : 103 dB (A)
Uncertainty (K) : 3 dB(A)

Model TW003G
Sound pressure level (L_{pA}) : 96 dB(A)
Sound power level (L_{WA}) : 104 dB (A)
Uncertainty (K) : 3 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:

Model TW001G
Work mode: impact tightening of fasteners of the maximum capacity of the tool
Vibration emission (a_h) : 18.5 m/s^2
Uncertainty (K) : 2.0 m/s^2

Model TW002G
Work mode: impact tightening of fasteners of the maximum capacity of the tool
Vibration emission (a_h) : 24.0 m/s^2
Uncertainty (K) : 2.1 m/s^2

Model TW003G
Work mode: impact tightening of fasteners of the maximum capacity of the tool
Vibration emission (a_h) : 20.5 m/s^2
Uncertainty (K) : 2.7 m/s^2

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).

Declarations of Conformity

For European countries only

The Declarations of conformity are included in 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 impact 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. **Wear ear protectors.**
3. **Check the impact socket carefully for wear, cracks or damage before installation.**
4. **Hold the tool firmly.**
5. **Keep hands away from rotating parts.**
6. **Do not touch the impact socket, bolt, nut or the workpiece immediately after operation.** They may be extremely hot and could burn your skin.
7. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
8. **The proper fastening torque may differ depending upon the kind or size of the bolt. Check the torque with a torque wrench.**
9. **Make sure there are no electrical cables, water pipes, gas pipes etc. that could cause a hazard if damaged by use of the tool.**

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 with the battery cartridge. I**t 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. I**t may cause heating, catching fire, burst and malfunction of the tool or battery cartridge, resulting in burns or personal injury.
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. I**t 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.

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 as shown in the figure, it is not locked completely.

To remove the battery cartridge, slide it from the tool

while sliding the button on the front of the cartridge.
► **Fig.1: 1.** Red indicator **2.** Button **3.** Battery cartridge

⚠*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 lamps blink. 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.

Protections against other causes

Protection system is also designed for other causes that could damage the tool and allows the tool to stop automatically. Take all the following steps to clear the causes, when the tool has been brought to a temporary halt or stop in operation.

1. Make sure that all switch(es) is/are in the off position, and then turn the tool on again to restart.
2. Charge the battery(ies) or replace it/them with recharged battery(ies).
3. Let the tool and battery(ies) cool down.

If no improvement can be found by restoring protection system, then contact your local Makita Service Center.

Indicating the remaining battery capacity

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.
► **Fig.2: 1.** Indicator lamps **2.** Check button

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 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.
► **Fig.3: 1.** Switch trigger

NOTE: The tool automatically stops when you keep pulling the switch trigger for about 6 minutes.

NOTE: When full speed mode is turned on, the rotation speed becomes fastest even if you do not pull the switch trigger fully.

For detail information, refer to the section of full speed mode.

Electric brake

This tool is equipped with an electric brake. If the tool consistently fails to quickly stop after the switch trigger is released, have the tool serviced at a Makita service center.

Lighting up the front lamp

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

To turn on the lamp status, press the button (LED) for one second. To turn off the lamp status, press the button (LED) for one second again.
With the lamp status ON, pull the switch trigger to turn on the lamp. To turn off, release it. The lamp goes out

approximately 10 seconds after releasing the switch trigger.
With the lamp status OFF, the lamp does not turn on even if pulling the trigger.
► **Fig.4: 1.** Lamp

► **Fig.5: 1.** Button

NOTE: To confirm the lamp status, pull the trigger. When the lamp lights up by pulling the switch trigger, the lamp status is ON. When the lamp does not come on, the lamp status is OFF.

NOTE: When the tool is overheated, the light flashes for one minute, and then the LED display goes off. In this case, cool down the tool before operating again.

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

NOTE: While pulling the switch trigger, the lamp status cannot be changed.

NOTE: For approximately 10 seconds after releasing the switch trigger, the lamp status can be changed.

Reversing switch action

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

⚠***CAUTION:*** **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.

⚠***CAUTION:*** **When not operating the tool, always set the reversing switch lever to the neutral position.**

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.
► **Fig.6: 1.** Reversing switch lever

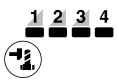
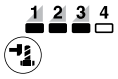
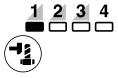
Changing the operation mode

This tool has multiple operation modes: 4 steps of impact mode and 3 steps of auto-stop mode. Select an appropriate mode according to your work.
You can change the operation mode within approximately one minute after releasing the switch trigger.

NOTE: You can extend the time to change the operation mode approximately one minute if you press the button or MODE.

Changing the impact mode

You can change the impact force in four steps: 4 (max), 3 (hard), 2 (medium), and 1 (soft).
The level of the impact force changes every time you press the button .
► **Fig.7**

Operation mode (Impact force grade displayed on panel)	**Maximum blows (min^{-1} (/min))**			**Purpose**
	TW001G	**TW002G**	**TW003G**	
4 (Max) 	2,500	2,400	2,400	Tightening when the force and the speed are desired.
3 (Hard) 	2,400	2,000	2,300	Tightening with less force and speed than Max mode (easier to control than Max mode).
2 (Medium) 	2,200	1,800	2,000	Tightening with less force to avoid screw thread breakage.
1 (Soft) 	1,900	1,700	1,600	Tightening when you need fine adjustment with small diameter bolts.

: The lamp is on.

Auto-stop mode

Auto-stop mode helps for good control when driving bolts.
This mode has 3 steps. It also works differently for clockwise and counterclockwise rotation.

Main purpose

- Clockwise: Reduce the risk of breakage of bolts/nuts due to overtightening.
- Counterclockwise: Prevent a bolt from falling off. When loosening a bolt, the tool automatically stops or slows down after the bolt/nut has been loosened enough.

The type of the auto-stop mode changes every time you press the button MODE.

NOTE: The timing to stop the driving varies depending on the type of the bolt/nut and material to be driven. Make a test driving before using this mode.

NOTE: This mode works only when the switch trigger is fully pulled.

NOTE: The impact force is the same as impact mode 4 in auto-stop mode.

► **Fig.8**

Auto-stop mode (Auto-stop mode displayed on panel)	Feature	
	Clockwise	Counterclockwise
1 	The tool stops automatically as soon as the tool has started impact blows. This mode helps to repeat screwdriving continuously with equal torque. This mode also helps to reduce the risk of breakage of bolts/nuts due to overtightening.	The tool stops automatically as soon as it has stopped impact blows.
2 	The tool stops automatically approximately 0.5 second later from the moment that the tool has started impact blows.	The tool stops automatically approximately 0.2 second later from the moment that the tool has stopped impact blows.
3 	The tool stops automatically approximately 1 second later from the moment that the tool has started impact blows.	The tool slows down the rotation after the tool has stopped impact blows.

■: The lamp is on.

Full speed mode

When full speed mode is turned on, the tool speed becomes fastest of the selected operation mode even if you do not pull the switch trigger fully. When full speed mode is turned off, the tool speed increases as you increase the pressure on the switch trigger.
To turn on full speed mode, press and hold the button MODE. To turn off full speed mode, press and hold the button MODE again.
The lamp turns on while full speed mode is on.
► **Fig.9:** **1.** Button MODE **2.** Lamp

NOTE: Full speed mode continues even after switching the operation mode.

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.

Selecting correct impact socket

Always use the correct size impact socket for bolts and nuts. An incorrect size impact socket will result in inaccurate and inconsistent fastening torque and/or damage to the bolt or nut.

Installing or removing impact socket

⚠*CAUTION:* Make sure that the impact socket and the mounting portion are not damaged before installing the impact socket.

⚠*CAUTION:* After inserting the impact socket, make sure that it is firmly secured. If it comes out, do not use it.

Tool with the ring spring

For impact socket with O-ring and pin

Only for model TW001G

Move the O-ring out of the groove in the impact socket and remove the pin from the impact socket. Fit the impact socket onto the square drive so that the hole in the impact socket is aligned with the hole in the square drive.
Insert the pin through the hole in the impact socket and

square drive. Then return the O-ring to the original position in the impact socket groove to retain the pin.
To remove the impact socket, follow the installation procedures in reverse.
► **Fig.10:** **1.** Impact socket **2.** O-ring **3.** Pin

For impact socket without O-ring and pin

Only for model TW002G

Push the impact socket onto the square drive until it locks into place.

To remove the impact socket, simply pull it off.
► **Fig.11:** **1.** Impact socket **2.** Square drive **3.** Ring spring

Tool with the detent pin

For tool with firm fit detent pin

Only for model TW003G

To install the impact socket, align the hole in the side of the impact socket with the detent pin on the square drive, and then, push it onto the square drive until it locks into place. Tap the impact socket lightly if required.
To remove the impact socket, depress the detent pin through the hole in the impact socket and pull the impact socket off the square drive.
► **Fig.12:** **1.** Impact socket **2.** Hole **3.** Square drive **4.** Detent pin

NOTE: The firm fit detent pin may fit too securely to remove the impact socket.

In that case, depress the firm fit detent pin fully and pull the impact socket off the square drive.

Installing hook

WARNING: **Use the hanging/mounting parts for their intended purposes only, e.g., hanging the tool on a tool belt between jobs or work intervals.**

WARNING: **Be careful not to overload the hook as too much force or irregular overburden may cause damages to the tool resulting in personal injury.**

CAUTION: **When installing the hook, always secure it with the screw firmly.** If not, the hook may come off from the tool and result in the personal injury.

CAUTION: **Make sure to hang the tool securely before releasing your hold.** Insufficient or unbalanced hooking may cause falling off and you may be injured.

The hook is convenient for temporarily hanging the tool. This can be installed on either side of the tool. To install the hook, insert it into a groove in the tool housing on either side and then secure it with two screws. To remove, loosen the screws and then take it out.
► **Fig.13:** **1.** Groove **2.** Hook **3.** Screw

Ring

Country specific

CAUTION: **Before using the ring, always make sure that the bracket and ring are secured and not damaged.**

CAUTION: **Use the hanging/mounting parts for their intended purposes only.** Using for unintended purpose may cause accident or personal injury.

The ring is convenient for hanging the tool with hoist. First, place the rope through the ring. Then hang the tool up to the air with hoist.
► **Fig.14:** **1.** Bracket **2.** Ring **3.** Screws

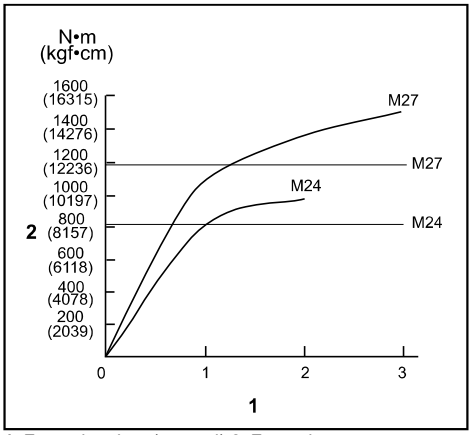
OPERATION

CAUTION: **Always insert the battery cartridge all the way until it locks in place.** If you can see the red indicator on the upper side of the button, it is not locked completely. Insert it 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.

Hold the tool firmly and place the impact socket over the bolt or nut. Turn the tool on and fasten for the proper fastening time.
The proper fastening torque may differ depending upon the kind or size of the bolt, the material of the workpiece to be fastened, etc. The relation between fastening torque and fastening time is shown in the figures.
► **Fig.15**

Model TW001G/TW002G

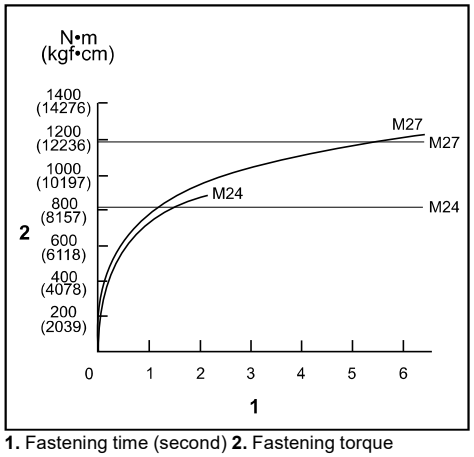
Proper fastening torque for high tensile bolt with max impact mode (4)



1. Fastening time (second) **2.** Fastening torque

Model TW003G

Proper fastening torque for high tensile bolt with max impact mode (4)



1. Fastening time (second) **2.** Fastening torque

⚠*CAUTION:* If the tool is operated continuously, do not touch the hammer case. The hammer case may be extremely hot and could burn your skin.

► **Fig.16: 1.** Hammer case

NOTE: Hold the tool pointed straight at the bolt or nut.

NOTE: Excessive fastening torque may damage the bolt/nut or impact socket. Before starting your job, always perform a test operation to determine the proper fastening time for your bolt or nut.

NOTE: 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 cartridge.

The fastening torque is affected by a wide variety of factors including the following. After fastening, always check the torque with a torque wrench.

1. When the battery cartridge is discharged almost completely, voltage will drop and the fastening torque will be reduced.
2. Impact socket
   - Failure to use the correct size impact socket will cause a reduction in the fastening torque.
   - A worn impact socket (wear on the hex end or square end) will cause a reduction in the fastening torque.
3. Bolt
   - Even though the torque coefficient and the class of bolt are the same, the proper fastening torque will differ according to the diameter of bolt.
   - Even though the diameters of bolts are the same, the proper fastening torque will differ according to the torque coefficient, the class of bolt and the bolt length.
4. The use of the universal joint or the extension bar somewhat reduces the fastening force of the impact wrench. Compensate by fastening for a longer period of time.
5. The manner of holding the tool or the material of driving position to be fastened will affect the torque.
6. Operating the tool at low speed will cause a reduction in the fastening torque.

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.

- Impact socket
- Extension bar
- Universal joint
- Extension handle
- Protector
- Pin 4 Set (only for Model TW003G)
- 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.

SPECIFIKATIONER

Modell:		TW001G	TW002G	TW003G
Åtdragningskapaciteter	Standardbult	M12 - M36		
	Höghållfast bult	M10 - M27		
Fyrkantig drivtapp		19,0 mm	12,7 mm	
Hastighet utan belastning (RPM)	Max slagläge (4)	0 - 1 800 min^{-1}		
	Hårt slagläge (3)	0 - 1 400 min^{-1}	0 - 1 000 min^{-1}	0 – 1 200 min^{-1}
	Medel slagläge (2)	0 - 1 150 min^{-1}	0 - 900 min^{-1}	0 – 1 000 min^{-1}
	Mjukt slagläge (1)	0 - 950 min^{-1}	0 - 850 min^{-1}	0 – 800 min^{-1}
Slag per minut	Max slagläge (4)	0 - 2 500 min^{-1}	0 - 2 400 min^{-1}	
	Hårt slagläge (3)	0 - 2 400 min^{-1}	0 - 2 000 min^{-1}	0 – 2 300 min^{-1}
	Medel slagläge (2)	0 - 2 200 min^{-1}	0 - 1 800 min^{-1}	0 – 2 000 min^{-1}
	Mjukt slagläge (1)	0 - 1 900 min^{-1}	0 - 1 700 min^{-1}	0 – 1 600 min^{-1}
Total längd		217 mm	213 mm	
Märkspänning		36 V - 40 V likström max		
Nettovikt		3,9 - 5,1 kg		3,8 – 5,0 kg

- På grund av vårt pågående program för forskning och utveckling kan dessa specifikationer ändras utan föregående meddelande.
- Specifikationer kan variera mellan olika länder.
- Vikten kan variera beroende på tillbehöret/tillbehören, inklusive batterikassetten. Den lättaste och den tyngsta kombinationen visas i tabellen.

Tillgänglig batterikassett och laddare

Batterikassett	BL4020* / BL4025* / BL4040* / BL4040F* / BL4050F / BL4080F * : Rekommenderat batteri
Laddare	DC40RA / DC40RB / DC40RC / DC40WA

- Vissa av batterikassetterna och laddarna på listan ovan kanske inte finns tillgängliga i din region.

⚠ ***VARNING:*** **Använd endast batterikassetter och laddare från listan ovan.** Användning av andra batterikassetter och laddare kan orsaka personskada och/eller brand.

Avsedd användning

Verktyget är avsett för åtdragning av bultar och muttrar.

Buller

Den normala bullernivån för A-belastning är bestämd enligt EN62841-2-2:

Modell TW001G
Ljudtrycksnivå (L_{pA}) : 103 dB (A)
Ljudeffektnivå (L_{WA}) : 111 dB (A)
Mättolerans (K): 3 dB (A)

Modell TW002G
Ljudtrycksnivå (L_{pA}) : 95 dB (A)
Ljudeffektnivå (L_{WA}) : 103 dB (A)
Mättolerans (K): 3 dB (A)

Modell TW003G
Ljudtrycksnivå (L_{pA}) : 96 dB (A)
Ljudeffektnivå (L_{WA}) : 104 dB (A)
Mättolerans (K): 3 dB (A)

OBS: Det deklarerade bullervärdet har uppmätts i enlighet med standardtestmetoden och kan användas för jämförandet av en maskin med en annan.

OBS: Det deklarerade bulleremissionsvärdet kan också användas i en preliminär bedömning av exponering för vibration.

⚠ ***VARNING:*** **Använd hörselskydd.**

⚠ ***VARNING:*** **Bulleremissionen under faktisk användning av maskinen kan skilja sig från det deklarerade värdet, beroende på hur maskinen används och särskilt vilken typ av arbetsstycke som behandlas.**

⚠ ***VARNING:*** **Var noga med att identifiera säkerhetsåtgärder för att skydda användaren, vilka är grundade på en uppskattning av graden av exponering för vibrationer under de faktiska användningsförhållandena, (ta, förutom avtryckartiden, med alla delar av användarcykeln i beräkningen, som till exempel tiden då maskinen är avstängd och när den går på tomgång).**

Vibration

Det totala vibrationsvärdet (treaxlad vektorsumma) bestämt enligt EN62841-2-2:

Modell TW001G
Arbetsläge: maskinens maximala kapacitet för slagåtdragning
Vibrationsemission (a_h) : 18,5 m/s^2
Mättolerans (K): 2,0 m/s^2

Modell TW002G
Arbetsläge: maskinens maximala kapacitet för slagåtdragning
Vibrationsemission (a_h) : 24,0 m/s^2
Mättolerans (K): 2,1 m/s^2

Modell TW003G
Arbetsläge: maskinens maximala kapacitet för slagåtdragning
Vibrationsemission (a_h) : 20,5 m/s^2
Mättolerans (K): 2,7 m/s^2

OBS: Det deklarerade totala vibrationsvärdet har uppmätts i enlighet med standardtestmetoden och kan användas för jämförandet av en maskin med en annan.

OBS: Det deklarerade totala vibrationsvärdet kan också användas i en preliminär bedömning av exponering för vibration.

⚠***VARNING:*** **Vibrationsemissionen under faktisk användning av maskinen kan skilja sig från det deklarerade värdet, beroende på hur maskinen används och särskilt vilken typ av arbetsstycke som behandlas.**

⚠***VARNING:*** **Var noga med att identifiera säkerhetsåtgärder för att skydda användaren, vilka är grundade på en uppskattning av graden av exponering för vibrationer under de faktiska användningsförhållandena, (ta, förutom avtryckartiden, med alla delar av användarcykeln i beräkningen, som till exempel tiden då maskinen är avstängd och när den går på tomgång).**

Försäkran om överensstämmelse

Gäller endast inom EU

Försäkran om överensstämmelse ingår i bilaga A till denna bruksanvisning.

SÄKERHETSVARNINGAR

Allmänna säkerhetsvarningar för maskiner

⚠***VARNING*** **Läs alla säkerhetsvarningar, instruktioner, illustrationer och specifikationer som medföljer detta elverktyg.** Underlåtenhet att följa alla instruktioner nedan kan leda till elstötar, brand och/eller allvarliga personskador.

Spara alla varningar och instruktioner för framtida referens.

Termen ”maskin” som anges i varningarna hänvisar till din eldrivna maskin (sladdansluten) eller batteridrivna maskin (sladdlös).

Säkerhetsvarningar för sladdlös mutterdragare

1. **Håll maskinen i de isolerade handtagen om det finns risk för att skruvdragaren kan komma i kontakt med en dold elkabel.** Skruvdragare som kommer i kontakt med en ”strömförande” kabel kan få sina blottlagda metalldelar ”strömförande”, vilket kan ge användaren en elektrisk stöt.
2. **Använd hörselskydd.**
3. **Kontrollera krafthylsan noga före användning, så att den inte är sliten, sprucken eller skadad.**
4. **Håll stadigt i maskinen.**
5. **Håll händerna på avstånd från roterande delar.**
6. **Rör inte momenthylsan, bulten, muttern eller arbetsstycket direkt efter arbetet.** De kan vara extremt varma och orsaka brännskador.
7. **Se till att alltid ha ordentligt fotfäste.**
   Se till att ingen står under dig när maskinen används på hög höjd.
8. **Rätt åtdragningsmoment kan variera beroende på bultens typ eller storlek. Kontrollera åtdragningsmomentet med en momentnyckel.**
9. **Se till att det inte finns några elkablar, vattenrör, gasledningar etc. som kan orsaka fara om de skadas av verktyget.**

SPARA DESSA ANVISNINGAR.

⚠***VARNING:*** **GLÖM INTE att också fortsättningsvis strikt följa säkerhetsanvisningarna för maskinen även efter att du blivit van att använda den.**

Vid FELAKTIG HANTERING av maskinen eller om inte säkerhetsanvisningarna i denna bruksanvisning följs kan följden bli allvarliga personskador.

Viktiga säkerhetsanvisningar för batterikassetten

1. **Innan batterikassetten används ska alla instruktioner och varningsmärken på (1) batteriladdaren, (2) batteriet och (3) produkten läsas.**
2. **Montera inte isär eller mixtra med batterikassetten.** Det kan leda till brand, överdriven värme eller explosion.
3. **Om drifttiden blivit avsevärt kortare ska användningen avbrytas omedelbart. Det kan uppstå överhettning, brännskador och t o m en explosion.**
4. **Om du får elektrolyt i ögonen ska de sköljas med rent vatten och läkare uppsökas omedelbart. Det finns risk för att synen förloras.**
5. **Kortslut inte batterikassetten.**
   (1) **Rör inte vid polerna med något strömförande material.**
   (2) **Undvik att förvara batterikassetten tillsammans med andra metallobjekt som t.ex. spikar, mynt o.s.v.**

(3) **Skydda batteriet mot vatten och regn. En batterikortslutning kan orsaka ett stort strömflöde, överhettning, brand och maskinhaveri.**

6. **Förvara och använd inte verktyget och batterikassetten på platser där temperaturen kan nå eller överstiga 50 °C.**
7. **Bränn inte upp batterikassetten även om den är svårt skadad eller helt utsliten. Batterikassetten kan explodera i öppen eld.**
8. **Spika inte i, krossa, kasta, tappa eller slå batterikassetten mot hårda föremål.** Dylika händelser kan leda till brand, överdriven värme eller explosion.
9. **Använd inte ett skadat batteri.**
10. **De medföljande litiumjonbatterierna är föremål för kraven i gällande lagstiftning för farligt gods.**
    För kommersiella transporter (av t.ex. tredje parter som speditionsfirmor) måste de särskilda transportkrav som anges på emballaget och etiketter iakttas.
    För att förbereda den produkt som ska avsändas krävs att du konsulterar en expert på riskmaterial.
    Var också uppmärksam på att det i ditt land kan finnas ytterligare föreskrifter att följa.
    Tejpa över eller maskera blottade kontakter och packa batteriet på sådant sätt att det inte kan röra sig fritt i förpackningen.
11. **När batterikassetten ska kasseras måste den tas bort från maskinen och kasseras på ett säkert sätt. Följ lokala föreskrifter beträffande avfallshantering av batteriet.**
12. **Använd endast batterierna med de produkter som specificerats av Makita.** Att använda batterierna med ej godkända produkter kan leda till brand, överdriven värme, explosion eller utläckande elektrolyt.
13. **Om maskinen inte används under en lång tid måste batteriet tas bort från maskinen.**
14. **Under och efter användning kan batterikassetten bli het vilket kan orsaka brännskador eller lättare brännskador. Var uppmärksam på hur du hanterar varma batterikassetter.**
15. **Vidrör inte verktygets kontakter direkt efter användning eftersom de kan bli heta och orsaka brännskador.**
16. **Låt inte flisor, damm eller smuts fastna i kontakterna, i hål eller spår i batterikassetten.** Det kan leda till att verktyget eller batterikassetten värms upp, fattar eld, går sönder eller inte fungerar som de ska, vilket kan orsaka brännskador eller personskador.
17. **Såvida inte verktyget stöder arbeten i närheten av högspänningsledningar får batterikassetten inte användas i närheten av en högspänningsledning.** Det kan leda till att verktyget eller batterikassetten går sönder eller inte fungerar korrekt.
18. **Förvara batteriet utom räckhåll för barn.**

SPARA DESSA ANVISNINGAR.

⚠*FÖRSIKTIGT:* Använda endast äkta Makita-batterier. Användning av oäkta Makita-batterier eller batterier som har manipulerats kan leda till person- och utrustningsskador eller till att batteriet fattar eld. Det upphäver också Makitas garanti för verktyget och laddaren.

Tips för att uppnå batteriets maximala livslängd

1. **Ladda batterikassetten innan den är helt urladdad. Stanna alltid maskinen och ladda batterikassetten när du märker att maskinen blir svagare.**
2. **Ladda aldrig en fulladdad batterikassett. Överladdning förkortar batteriets livslängd.**
3. **Ladda batterikassetten vid en rumstemperatur på 10 °C - 40 °C. Låt en varm batterikassett svalna innan den laddas.**
4. **När batterikassetten inte används ska den tas bort från verktyget eller laddaren.**
5. **Ladda batterikassetten om du inte har använt den på länge (mer än sex månader).**

FUNKTIONSBESKRIVNING

⚠*FÖRSIKTIGT:* Se alltid till att maskinen är avstängd och batterikassetten borttagen innan du justerar maskinen eller kontrollerar dess funktioner.

Montera eller demontera batterikassetten

⚠*FÖRSIKTIGT:* Stäng alltid av maskinen innan du monterar eller tar bort batterikassetten.

⚠*FÖRSIKTIGT:* Håll stadigt i maskinen och batterikassetten när du monterar eller tar bort batterikassetten. I annat fall kan det leda till att de glider ur dina händer och orsakar skada på maskinen och batterikassetten samt personskada.

Sätt i batterikassetten genom att rikta in tungan på batterikassetten mot spåret i höljet och skjut den på plats. Tryck in batterikassetten ordentligt tills den låser fast med ett klick. Om du kan se den röda indikatorn som bilden visar är den inte låst ordentligt.

Ta bort batterikassetten genom att skjuta ner knappen på kassettens framsida samtidigt som du drar ut batterikassetten.

► **Fig.1: 1.** Röd indikator **2.** Knapp **3.** Batterikassett