ENGLISH

INSTRUCTION MANUAL

Cordless Impact Driver

BTD132

009203

⚠WARNING:
For your personal safety, READ and UNDERSTAND before using.
SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

ENGLISH

SPECIFICATIONS

Model		BTD132
Capacities	Machine screw	4 mm - 8 mm
	Standard bolt	5 mm - 14 mm
	High tensile bolt	5 mm - 12 mm
No load speed (min^{-1})	Hammer mode (High)	0 - 2,400
	Hammer mode (Middle)	0 - 1,800
	Hammer mode (Low)	0 - 1,100
Impacts per minute	Hammer mode (High)	0 - 3,200
	Hammer mode (Middle)	0 - 2,600
	Hammer mode (Low)	0 - 1,100
Overall length		With one-touch bit holder 139 mm Without one-touch bit holder 140 mm
Net weight (with battery cartridge)		1.3 kg
Rated voltage		D.C.14.4 V

• Due to our continuing programme of research and development, the specifications herein are subject to change without notice.

• Note: Specifications may differ from country to country.

END004-2

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 together with household waste material! In observance of European Directive 2002/96/EC on waste electric and electronic equipment and its implementation in accordance with national law, electric equipment that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

ENE033-1

Intended use

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

ENG102-1

For European countries only

Noise

The typical A-weighted noise level determined according to EN60745-2-2:

Sound pressure level (L_{pA}) : 92 dB(A)
Sound power level (L_{WA}) : 103 dB(A)
Uncertainty (K) : 3 dB(A)

Wear ear protection

ENG205-1

Vibration

The vibration total value (tri-axial vector sum) determined according to EN60745-2-2:

Work mode : impact tightening of fasteners of the maximum capacity of the tool
Vibration emission (a_h) : 12.0 m/s^2
Uncertainty (K) : 2.5 m/s^2

ENH102-8

EC-DECLARATION OF CONFORMITY

Model; BTD132

We declare under our sole responsibility that this product is in compliance with the following standards of standardized documents;
EN60745, EN55014 in accordance with Council Directives, 2004/108/EC, 98/37/EC.

CE2008

000230

Tomoyasu Kato
Director

Responsible Manufacturer:
Makita Corporation
3-11-8, Sumiyoshi-cho, Anjo, Aichi, JAPAN
Authorized Representative in Europe:
Makita International Europe Ltd.
Michigan Drive, Tongwell, Milton Keynes, Bucks MK15 8JD, ENGLAND

GEA006-2

General Power Tool Safety Warnings

⚠ **WARNING 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

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **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.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

4. **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.
5. **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.
6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **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.
8. **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.
9. **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.
11. **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.
13. **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.
14. **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 dust-related 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.
18. **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.

22. **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.
25. **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.
29. **Follow instruction for lubricating and changing accessories.**
30. **Keep handles dry, clean and free from oil and grease.**

GEB012-2

SPECIFIC SAFETY RULES

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to impact driver safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

1. **Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
2. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
3. **Hold the tool firmly.**
4. **Wear ear protectors.**

SAVE THESE INSTRUCTIONS.

⚠WARNING:

MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

ENC007-2

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 battery cartridge.**
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 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. **Be careful not to drop or strike battery.**

SAVE THESE INSTRUCTIONS.

Tips for maintaining maximum battery life

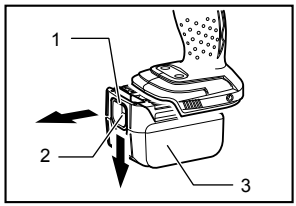
1. **Charge the battery cartridge before completely discharged.**
   Always stop tool operation and charge the battery cartridge when you notice less tool power.
2. **Never recharge a fully charged battery cartridge.**
   Overcharging shortens the battery service life.
3. **Charge the battery cartridge with room temperature at 10˚ C - 40˚ C (50˚ F - 104˚ F). Let a hot battery cartridge cool down before charging it.**

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

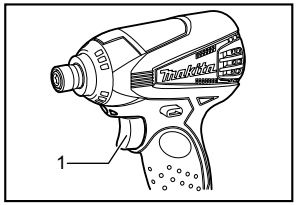


1. Red part
2. Button
3. Battery cartridge

009204

- Always switch off the tool before insertion or removal of the battery cartridge.
- To remove the battery cartridge, withdraw it from the tool while sliding the button on the front of the cartridge.
- To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Always insert it all the way until it locks in place with a little click. If you can see the red part on the upper side of the button, it is not locked completely. Insert it fully until the red part cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
- Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is not being inserted correctly.

Switch action



1. Switch trigger

009208

⚠CAUTION:

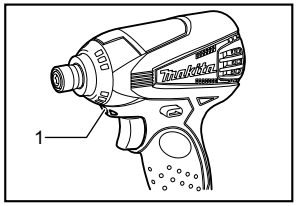
- Before inserting the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

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.

Lighting up the front lamp

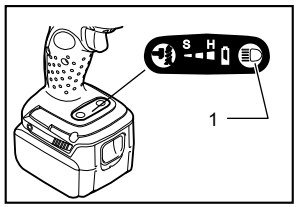
⚠CAUTION:

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



1. Lamp

009209



1. Light button

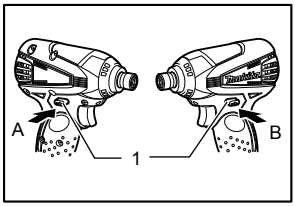
009210

Every time the light button on the switch panel is pressed, the light status is alternatively changed from the ON to the OFF and from the OFF to the ON.
With the light button in the ON status, pull the switch trigger to turn on the light. To turn off, release it and the light goes out approximately 10 seconds after releasing.
With the light button in the OFF status, even if the trigger is pulled, the lamp will not light on.

NOTE:

- To make sure the status of light, pull the trigger. When the lamp lights up by pulling the switch trigger, the light switch is in the ON status. When the lamp does not come on, the light switch is in the OFF status.
- During the operation of switch trigger, the light status cannot be changed.
- For approximately 10 seconds after releasing the switch trigger, the light status can be switched.

Reversing switch action



1. Reversing switch lever

009211

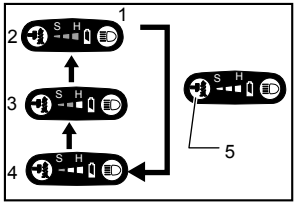
This tool has a reversing switch to change the direction of rotation. Depress the reversing switch lever from the A side for clockwise rotation or from the B side for counterclockwise rotation.

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.

Changing the hammering force



1. Changed in three steps
2. High
3. Midle
4. Low
5. Hammering force button

009212

Hammering force grade displayed on panel	Maximum blows	Application	Work
High 	3,200 (min^{-1})	Tightening when force and speed are desired.	Tightening in underwork material/ Tightening long screws/ Tightening bolts.
Midle 	2,600 (min^{-1})	Tightening when a good finishing is needed.	Tightening in the finishing board, plaster board.
Low 	1,100 (min^{-1})	Tightening when excessive tightening need to be avoided because of potentially clogged female screw and broken or damaged screw head.	Tightening sash screw/ Tightening small screws such as M6.

009215

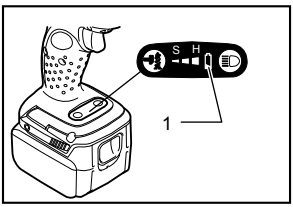
The hammering force can be changed in three steps: high, midle and low.

This allows a tightening suitable to the work.
Every time the hammering force button is pressed, the number of blows changes in three steps.
For approximately one minute after releasing the switch trigger, the hammering force can be changed.

NOTE:

- When all lamps on the switch panel go out, the tool is turned off to save the battery power. The hammer force grade can be checked by pulling the switch trigger to the extent that the tool does not operate.
- During the operation of switch trigger, the hammer force grade cannot be changed.

Empty signal for remaining battery capacity



1. LED indicator

009213

Pulling the trigger switch when the remaining battery capacity become very low makes LED indicator lights up.
If the tool is used continuously with the LED indicator lighting up and the battery power is almost used up, the LED indicator will flicker and the tool itself will stop
Please refer to the following table for the LED indicator status and the remaining battery capacity.

LED indicator status	Remaining battery capacity
OFF	Enough
Lighting on	20%
Flickering The light also flickers three times a second at the same time.	Very low and the tool will stops

009214

NOTE:

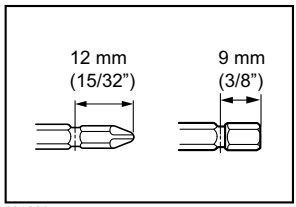
- When all lamps on the switch panel go out, the tool is turned off to save the battery power. The remaining battery capacity can be checked by pulling the switch trigger to the extent that the tool does not operate.
- All of the lamps on the switch panel go out approximately one minute after releasing the switch trigger.
- If the LED indicator flickers and the tool stops even with a recharged battery cartridge, stop using and have the tool repaired by a Makita local service center.

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 driver bit or socket bit

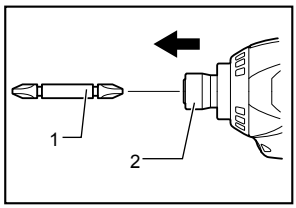


001266

Use only the driver bit or socket bit shown in the figure. Do not use any other driver bit or socket bit.

For tool without one-touch type

To install the bit, pull the sleeve in the direction of the arrow and insert the bit into the sleeve as far as it will go. Then release the sleeve to secure the bit.

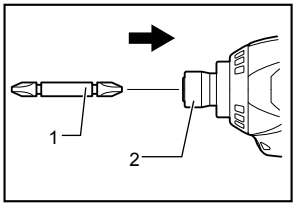


1. Bit
2. Sleeve

009326

For tool with one-touch type

To install the bit, insert the bit into the sleeve as far as it will go.



1. Bit
2. Sleeve

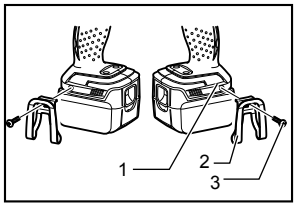
009205

To remove the bit, pull the sleeve in the direction of the arrow and pull the bit out firmly.

NOTE:

- If the bit is not inserted deep enough into the sleeve, the sleeve will not return to its original position and the bit will not be secured. In this case, try re-inserting the bit according to the instructions above.
- When it is difficult to insert the bit, pull the sleeve and insert it into the sleeve as for as it will go.
- After inserting the bit, make sure that it is firmly secured. If it comes out, do not use it.

Hook

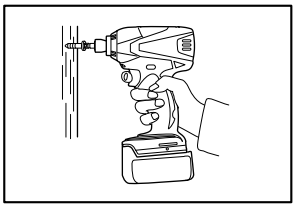


1. Groove
2. Hook
3. Screw

009207

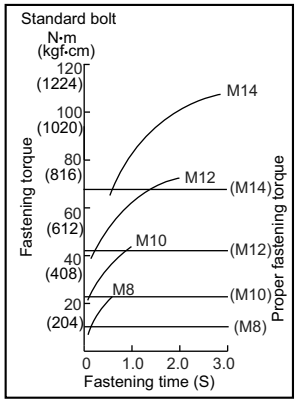
The hook is convenient for temporarily hanging the tool. This can be installed on either side of the tool.
To install the hook, insert it into a groove in the tool housing on either side and then secure it with a screw. To remove, loosen the screw and then take it out.

OPERATION

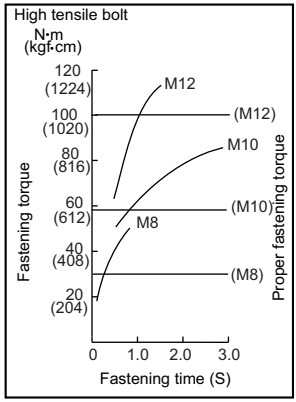


009222

The proper fastening torque may differ depending upon the kind or size of the screw/bolt, the material of the workpiece to be fastened, etc. The relation between fastening torque and fastening time is shown in the figures.



009218



009219

Hold the tool firmly and place the point of the driver bit in the screw head. Apply forward pressure to the tool to the extent that the bit will not slip off the screw and turn the tool on to start operation.

NOTE:

- Use the proper bit for the head of the screw/bolt that you wish to use.
- When fastening screw M8 or smaller, choose a proper hammer force carefully adjust pressure on the switch trigger so that the screw is not

damaged.

- Hold the tool pointed straight at the screw.
- If the hammering force is too strong you tighten the screw for a time longer than shown in the figures, the screw or the point of the driver bit may be overstressed, stripped, damaged, etc. Before starting your job, always perform a test operation to determine the proper fastening time for your screw.

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. Driver bit or socket bit
   Failure to use the correct size driver bit or socket bit 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 manner of holding the tool or the material of driving position to be fastened will affect the torque.
5. 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 except for the following troubleshooting related to the light.

Troubleshooting

Trouble	Light status	Steps to be taken
The tool stops during operation.	Flickers twice per second.	The tool temperature is high.Cool down it fully. The tool restarts after its temperature becomes low.
	Flickers three times per second. (LED indicator for empty signal for remaining battery capacity also flickers.)	Remaining battery capacity level is low. Charge the battery cartridge.When the LED indicator still flickers even after charging the battery cartridge, stop using and have the tool repaired by a Makita local service center.
	Flickers five times per second.	Use the tool with the motor not locked.If the motor remains locked, stop using and have the tool repaired by a Makita local service center.
	Flickers once per second.	Stop using and have the tool repaired by a Makita local service center.
	Not flickers	The tool stops when continuing to pull the switch trigger for more than approximately 2 minutes. Release the switch trigger.

009217

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.

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.

- Screw bits
- Hook
- Plastic carrying case
- Various type of Makita genuine batteries and chargers

Makita Corporation Anjo, Aichi, Japan

884850-225