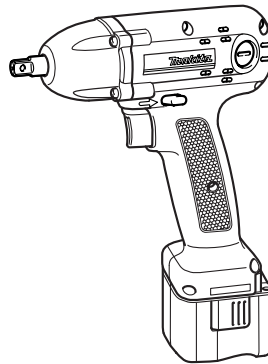




# Cordless Impact Wrench

Equipped with Electric Brake  
MODEL BTW070



001278

## I N S T R U C T I O N M A N U A L

**⚠ WARNING:**

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

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# SPECIFICATIONS

Model		BTW070
Capacities	Standard bolt	M5 - M12 (3/16" - 1/2")
	High tensile bolt	M5 - M10 (3/16" - 3/8")
Square drive		9.5 mm (3/8")
No load speed (RPM)		0 - 2,500/min.
Impacts per minute		0 - 3,000
Max. fastening torque		65 N.m (46.8 ft.lbs)
Overall length		166 mm (6-9/16")
Net weight		1.09 kg (2.4 lbs)
Rated voltage		D.C. 9.6 V
Standard battery cartridge		B9017A

- Manufacturer reserves the right to change specifications without notice.
- Specifications may differ from country to country.

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# GENERAL SAFETY RULES

USA003-2

## (FOR ALL BATTERY OPERATED TOOLS)

### **⚠ WARNING:**

**Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

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# SAVE THESE INSTRUCTIONS

## Work Area

1. **Keep your work area clean and well lit.** Cluttered benches and 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 bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

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## Electrical Safety

- 4. A battery operated tool with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery.** A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.
- 5. Use battery operated tool only with specifically designated battery pack.** Use of any other batteries may create a risk of fire.

## Personal Safety

- 6. Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- 7. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- 8. Avoid accidental starting. Be sure switch is in the locked or off position before inserting battery pack.** Carrying tools with your finger on the switch or inserting the battery pack into a tool with the switch on invites accidents.
- 9. Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- 10. Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- 11. Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

## Tool Use and Care

- 12. Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- 13. Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- 14. Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- 15. Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- 16. Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- 17. 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 sparks, burns, or a fire.
- 18. Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- 19. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- 20. Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may create a risk of injury when used on another tool.

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## SERVICE

**21. Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

**22. When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of shock or injury.

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## SPECIFIC SAFETY RULES

USB025-2

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

- 1. Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring.** Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.
- 2. Be aware that this tool is always in an operating condition, because it does not have to be plugged into an electrical outlet.**
- 3. Wear ear protectors.**
- 4. Check the socket carefully for wear, cracks or damage before installation.**
- 5. Hold the tool firmly.**
- 6. Always be sure you have a firm footing.**
- 7. 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.**

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## SAVE THESE INSTRUCTIONS

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

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# SYMBOLS


USD302-1

The followings show the symbols used for tool.

V ..... volts

.../min..... revolutions or reciprocation per minute

⎓ ..... direct current

 ..... number of blow

n<sub>0</sub> ..... no load speed

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# IMPORTANT SAFETY INSTRUCTIONS FOR BATTERY CARTRIDGE

ENC005-1

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.
  6. 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.
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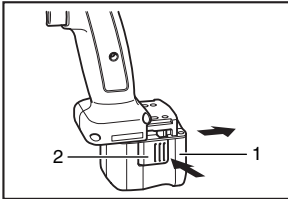
# SAVE THESE INSTRUCTIONS

## 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.
4. Charge the Nickel Metal Hydride battery cartridge when you do not use it for more than six months.

# FUNCTIONAL DESCRIPTION

001251



- 1. Battery cartridge
- 2. Button

## ⚠ 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

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

001254

Indicating lamp			Capacity
(C)	E	F	
●	■ ■ ■	□	80% - 100%
●	■ ■ □	□	60% - 80%
●	■ □ □	□	40% - 60%
●	□ □ □	□	10% - 40%
⚡ orange	□ □ □	□	0% - 10%

Indicating lamp			Capacity
E	F		
■	■ ■ ■	□	80% - 100%
■	■ ■ □	□	60% - 80%
■	■ □ □	□	40% - 60%
■	□ □ □	□	10% - 40%
⚡ orange	□ □ □	□	0% - 10%

## Checking the remaining battery capacity

### When charging

When the charging begins, the first (far left) indicating lamp begins to flicker. Then, as charging proceeds, the other lamps light, one after the other, to indicate the battery capacity.

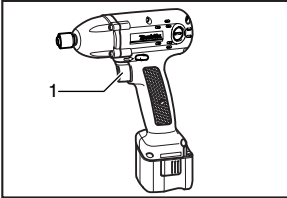
### When using

When the tool is switched on, the lamps will light to indicate the remaining battery capacity. When the tool is switched off, the light goes out after approx. 5 seconds. If the battery has not been used for a long time, or is needed refresh charging, the orange lamp begins to flicker. Use Makita refreshing adapter to refresh the battery.

## ⚠ CAUTION:

- A battery cartridge extracted from the charger that has been unplugged with the battery cartridge inserted does not work even if it is inserted in the tool. At this time, recharge it for about five seconds before use.

001255



1. Switch trigger

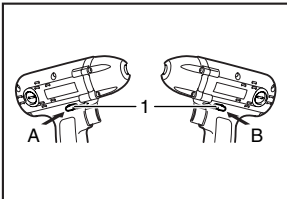
## Switch action

### ⚠ 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.

001257



1. Reversing switch lever

## Reversing switch action

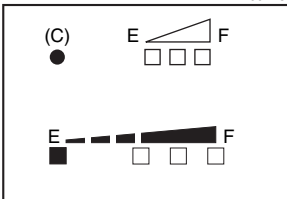
This tool has a reversing switch to change the direction of rotation. Depress the reversing switch lever from the A side for clockwise rotation or from the B side for counterclockwise rotation.

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.

001258



## The remaining Battery capacity

### Auto-stop mechanism

The tool stops automatically (Red color lamp lights on) after the battery capacity reaches under 20% to prevent the lack of fastening torque. Charge the battery or use a new fully charged one.

## 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.

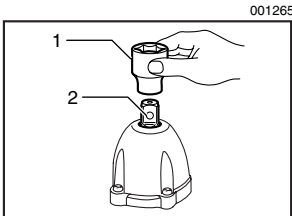
### Selecting correct socket

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

### Installing or removing socket

To install the socket, push it onto the anvil of the tool until it locks into place.

To remove the socket, simply pull it off.



1. Socket
2. Anvil

## OPERATION

[\*1] Presetting number of impacts is impossible for more than 200 impacts (4 seconds).

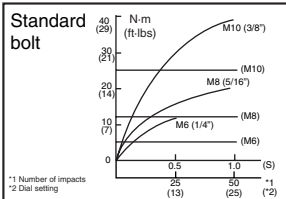
[\*2] Fastening time includes when you pull the trigger completely.

### CAUTION:

- Hold the tool firmly and place the socket over the bolt or nut. Turn the tool on and fasten for the proper fastening time and number of impacts (presetting number).
- 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.



001274

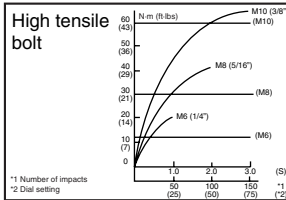


The proper fastening torque may differ depending upon the kind or size of the bolt, the material of the workpiece to be fastened, etc. The relation between fastening torque and fastening time is shown in the figures.

**NOTE:**

- When fastening screw M8 (5/16") or smaller, carefully adjust pressure on the switch trigger so that the screw is not damaged.
- Hold the tool pointed straight at the bolt or nut without applying excessive pressure on the tool.
- Excessive fastening torque may damage the bolt/nut or socket. Before starting your job, always perform a test operation to determine the proper fastening time for your bolt or nut. Especially for the bolt smaller than M8 (5/16"), perform the above test operation to prevent the trouble on socket or bolt, etc.

001275



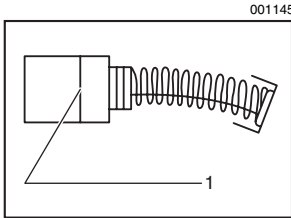
The fastening torque is affected by a wide variety of factors including the following. After fastening, always check the torque with a torque wrench.

1. When the battery cartridge is discharged almost completely, voltage will drop and the fastening torque will be reduced.
2. Socket
  - Failure to use the correct size socket will cause a reduction in the fastening torque.
  - A worn 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. Type of materials to be fastened, the manner of holding the tool and the tool speed will affect the torque.

## MAINTENANCE

### ⚠ CAUTION:

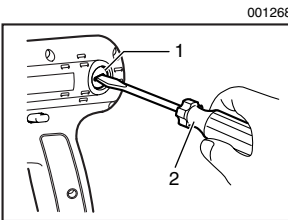
- Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.



1. Limit mark

### Replacing carbon brushes

Remove and check the carbon brushes regularly. Replace when they wear down to the limit mark. Keep the carbon brushes clean and free to slip in the holders. Both carbon brushes should be replaced at the same time. Use only identical carbon brushes.



1. Brush holder cap  
2. Screwdriver

Use a screwdriver to remove the brush holder caps. Take out the worn carbon brushes, insert the new ones and secure the brush holder caps.

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.

## 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.

- Protector(clear,red,blue)
- Automatic refreshing adapter





Cut



**Makita Canada Inc.**  
**1950 Forbes Street,**  
**Whitby, Ontario**  
**L1N 7B7**

Stamp  
Timbre

Fold



# Factory Service Centres

<b>Head Office:</b>	1950 Forbes St., Whitby, Ontario, L1N 7B7 (905) 571 - 2200	1-800-263-3734
<b>Regional Office:</b>	11771 Hammersmith Way, Richmond B.C. V7A 5H6 (604) 272 - 3104	1-800-663-0909
<b>Regional Office:</b> (Montreal)	6389 boul. Couture, St. Leonard, Quebec H1P 3J5 (514) 323 - 1223	1-800-361-7049
<b>Dartmouth:</b>	202 Brownlow Avenue Dartmouth, N.S., B3B 1T5 (902) 468 - 7064	1-888-625-4821
<b>Ville St. Laurent:</b> (Montreal)	1140 Rue Bégin, Ville St. Laurent, Quebec H4R 1X1 (514) 745 - 5025	1-888-745-5025
<b>Les Saules:</b> (Quebec)	1200 St. Jean Baptiste, Unit 106, Les Saules, Quebec, G2E 5E8 (418) 871 - 5720	1-800-663-5757
<b>Nepean:</b> (Ottawa)	210 Colonnade Road, Unit 11, Nepean, Ontario, K2E 7M1 (613) 224 - 5022	1-888-560-2214
<b>Whitby:</b>	1950 Forbes St., Whitby, Ontario, L1N 7B7 (905) 571 - 2200	1-800-263-3734
<b>London:</b>	317 Adelaide St. S., Unit 117, London, Ontario, N5Z 3L3 (519) 686 - 3115	1-800-571-0899
<b>Mississauga:</b>	6350 Tomken Rd., Unit 8, Mississauga, Ontario, L5T 1Y3 (905) 670 - 7255	1-888-221-9811
<b>Calgary:</b>	#8-6115 Fourth St. S.E., Calgary Alberta, T2H 2H9 (403) 243 - 3995	1-800-267-0445
<b>Edmonton:</b>	11614-149 Street, Edmonton, Alberta, T5M 3R3 (780) 455 - 6644	1-888-455-6644
<b>Richmond:</b>	11771 Hammersmith Way, Richmond, B.C., V7A 5H6 (604) 272 - 3104	1-800-663-0909
<b>Winnipeg:</b>	1670 St. James Street, Winnipeg, Manitoba, R3H 0L3 (204) 694 - 0402	1-800-550-5073
<b>Saskatoon:</b>	206A-2750 Faithful Avenue Saskatoon, Saskatchewan, S7K 6M6 (306) 931 - 0111	1-888-931-0111

For the authorized service centre nearest you please refer to the local yellow pages directory under "tools" or contact our customer service department (Tel) 1-800-263-3734

## When you need service...

- Explain the problem in a letter
- Enclose the letter with the tool
- Package carefully and send prepaid to the nearest Makita factory or authorized service centre

## CUSTOMER RECORD

DATE  
PURCHASED: \_\_\_\_\_

DEALER'S NAME  
& ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

MODEL NO.: \_\_\_\_\_

SERIAL NO.: \_\_\_\_\_

# MAKITA LIMITED ONE YEAR WARRANTY

## Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centres. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply:

- where normal maintenance is required,
- repairs have been made or attempted by others,
- the tool has been abused, misused or improperly maintained,
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

"The Makita Warranty is the only and the entire written warranty given by Makita for the Makita tools. No dealer or his agent or employee is authorized to extend or enlarge upon this warranty by any verbal or written statement or advertisement."

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE YEAR TERM OF THIS WARRANTY.

"This Warranty gives you specific rights. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any warranties set forth in any provincial legislation. To the extent required by law, the provisions in any provincial or federal legislation with respect to warranties take precedence over the provisions in this warranty."

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