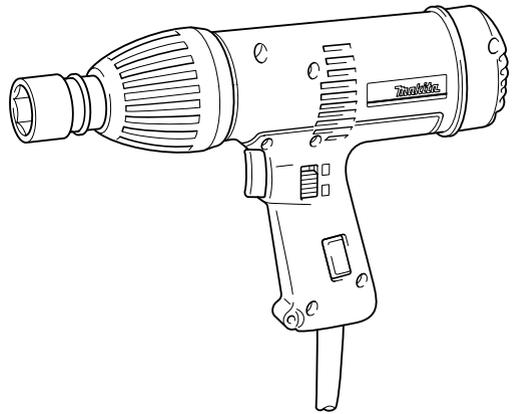


INSTRUCTION MANUAL



# Impact Wrench

6904VH  
6905H



005299

 DOUBLE INSULATION

**⚠WARNING:**

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

## ENGLISH SPECIFICATIONS

Model		6904VH	6905H
Capacities	Standard bolt	M10 - M16	M12 - M20
	High tensile bolt	M10 - M12	M12 - M16
	Wood screw	6 mm x 100 mm	-
	Self-drilling screw	6 mm	-
Square drive		12.7 mm	12.7 mm
No load speed (min <sup>-1</sup> )		High: 0 - 2,400	2,200
		Low: 0 - 2,100	-
Impacts per minute		High: 0 - 3,000	2,600
		Low: 0 - 2,500	-
Max. fastening torque		High: 196 N.m	294 N.m
		Low: 147 N.m	-
Overall length		265 mm	275 mm
Net weight		1.8 kg	2.3 kg
Safety class		II/II	II/II

- 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.
- Weight according to EPTA-Procedure 01/2003

END201-4

### Symbols

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



- Read instruction manual.



- DOUBLE INSULATION



- 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.

ENE036-1

### Intended use

The tool is intended for fastening bolts and nuts.

ENF002-1

### Power supply

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated in accordance with European Standard and can, therefore, also be used from sockets without earth wire.

### For Model 6904VH

ENG102-1

#### For European countries only

##### Noise

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

Sound pressure level ( $L_{pA}$ ) : 95 dB(A)

Sound power level ( $L_{WA}$ ) : 106 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 ( $a_h$ ) : 6.5 m/s<sup>2</sup>

Uncertainty (K) : 1.5 m/s<sup>2</sup>

### For Model 6905H

ENG102-1

#### For European countries only

##### Noise

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

Sound pressure level ( $L_{pA}$ ) : 94 dB(A)

Sound power level ( $L_{WA}$ ) : 105 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 ( $a_h$ ) : 6.0 m/s<sup>2</sup>

Uncertainty (K) : 1.5 m/s<sup>2</sup>

ENH101-10

### EC Declaration of Conformity

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

Designation of Machine: Impact wrench

Model No./ Type: 6904VH,6905H

are of series production and

**Conforms to the following European Directives:**

98/37/EC until December 28th 2009 and then with 2006/42/EC from 29th December 2009

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

EN50144, EN60745

The technical documentation is kept by our authorised representative in Europe who is:

Makita International Europe Ltd,

Michigan, Drive, Tongwell,

Milton Keynes, MK15 8JD, England

19th November 2008



Tomoyasu Kato

Director

Makita Corporation

3-11-8, Sumiyoshi-cho,

Anjo, Aichi, JAPAN

000230

GEA005-2

## 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.

#### Service

24. **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.

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

GEB009-4

## SPECIFIC SAFETY RULES

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

1. **Hold power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord.** Fastening 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 socket carefully for wear, cracks or damage before installation.**
4. **Hold the tool firmly.**
5. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**
6. **The proper fastening torque may differ depending upon the kind or size of the bolt. Check the torque with a torque wrench.**

## SAVE THESE INSTRUCTIONS.

### ⚠WARNING:

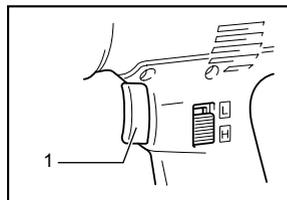
**MISUSE** or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

## FUNCTIONAL DESCRIPTION

### ⚠CAUTION:

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

#### Switch action



1. Switch trigger

002311

**⚠CAUTION:**

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

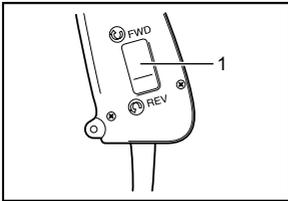
**For 6904VH**

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.

**For 6905H**

To start the tool, simply pull the switch trigger. Release the switch trigger to stop.

**Reversing switch action**



002322

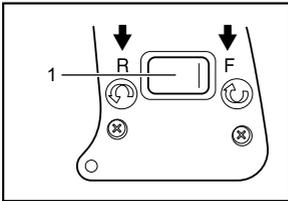
1. Reversing switch

**For 6904VH**

This tool has a reversing switch to change the rotational direction. Press the upper side (FWD side) for clockwise (forward) rotation or the lower side (REV side) for counterclockwise (reverse) rotation.

**For 6905H**

This tool has a reversing switch to change the rotational direction. Press the right side of the switch for clockwise (forward) rotation or the left side for counterclockwise (reverse) rotation.



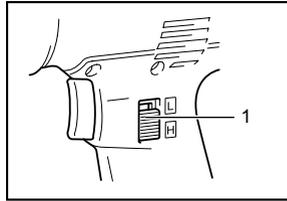
002323

1. Reversing switch

**⚠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.

**Speed change**



002329

1. Speed change lever

**For 6904VH only**

To change the speed, first switch off the tool and then slide the speed change lever fully to the "H" side (lower side) for high speed or to the "L" side (upper side) for low speed. Before starting operation, ensure that the speed change lever is slid fully to the desired side. Select the speed optimum for your job.

**⚠CAUTION:**

- Do not use the speed change lever while the tool is running. The tool may be damaged.

**ASSEMBLY**

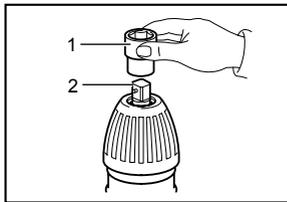
**⚠CAUTION:**

- Always be sure that the tool is switched off and unplugged 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.

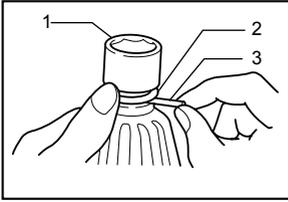
**Installing or removing socket**



002335

1. Socket  
2. Anvil

1. For socket without O-ring and pin  
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.
2. For socket with O-ring and pin



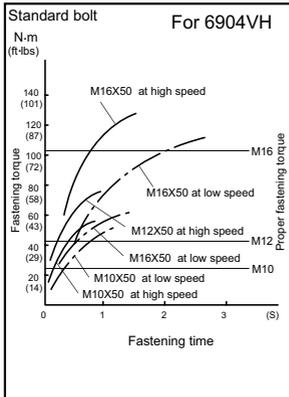
1. Socket
2. O-ring
3. Pin

005300

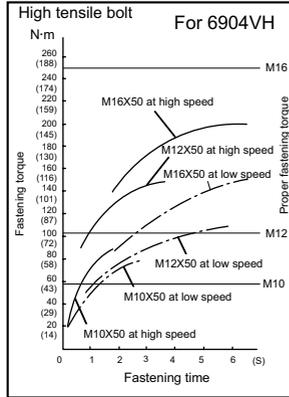
Move the O-ring out of the groove in the socket and remove the pin from the socket. Fit the socket onto the anvil of the tool so that the hole in the socket is aligned with the hole in the anvil. Insert the pin through the hole in the socket and anvil. Then return the O-ring to the original position in the socket groove to retain the pin. To remove the socket, follow the installation procedures in reverse.

## OPERATION

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.



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Hold the tool firmly and place the socket over the bolt or nut. Turn the tool on and fasten for the proper fastening time.

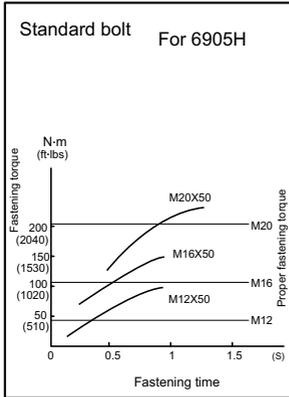
### NOTE:

- Hold the tool pointed straight at the bolt or nut.
- 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.

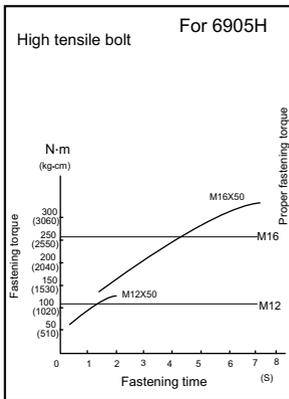
The fastening torque is affected by a wide variety of factors including the following. After fastening, always check the torque with a torque wrench.

1. Voltage
  - Voltage drop will cause a reduction in the fastening torque.
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. The manner of holding the tool or the material of driving position to be fastened will affect the torque.

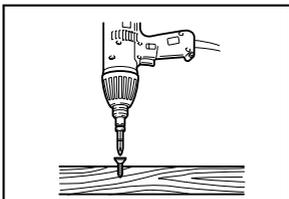


005303



005304

### Screwdriving operation



002371

### For 6904VH only

When driving screws, install a bit adapter (optional accessory) on the tool and insert a driver bit (optional accessory) into the bit adapter.

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. Start the tool slowly and then increase the speed gradually. Release the switch trigger just as the screw bottoms out.

### NOTE:

- Use the proper bit for the head of the screw/bolt that you wish to use.
- Hold the tool pointed straight at the screw or the screw and/or bit may be damaged.
- When driving wood screws, predrill pilot holes to make driving easier and to prevent splitting of the workpiece. The pilot holes should be slightly smaller than the wood screws in diameter.

## MAINTENANCE

### ⚠CAUTION:

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

To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, 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.

- Sockets
- Extension bar
- Universal joint
- Bit adapter (for 6904VH only)
- Phillips bits (for 6904VH only)
- Socket bits (for 6904VH only)

Makita Corporation Anjo, Aichi, Japan