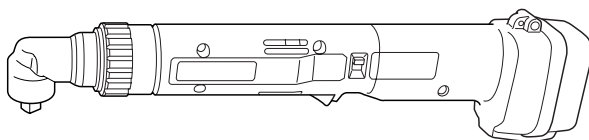




Cordless Angle Socket Driver

6704D/6704DW

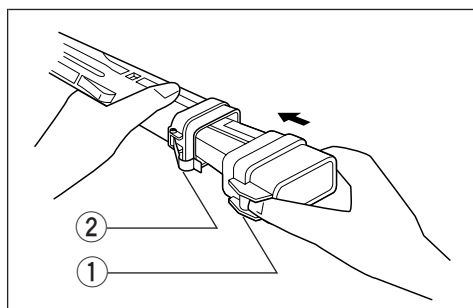
6706D/6706DW



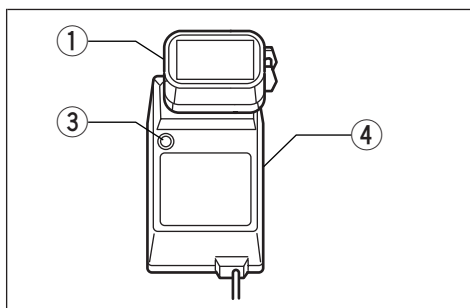
SPECIFICATIONS

Model	6704D	6706D
Capacities		
Bolt, nut and machine screw	4 mm – 6 mm	4 mm – 6 mm
Square drive	9.5 mm or 6.35 mm	9.5 mm or 6.35 mm
No load speed (min ⁻¹)	400	400
Fastening torque	2.0 N·m – 7.8 N·m	2.0 N·m – 7.8 N·m
Overall length	396 mm	396 mm
Net weight	1.4 kg	1.4 kg
Rated voltage	D.C. 9.6 V	D.C. 9.6 V

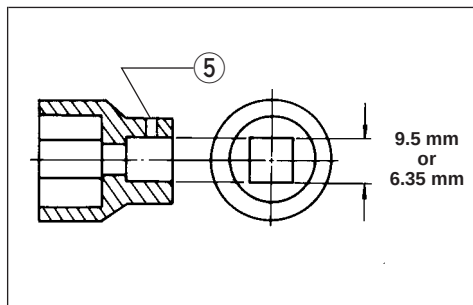
- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Note: Specifications may differ from country to country.



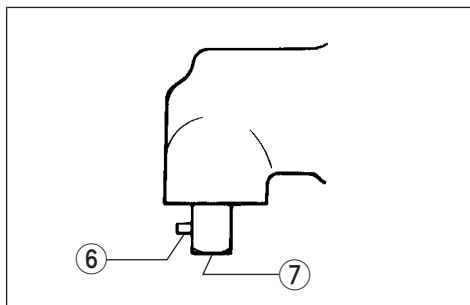
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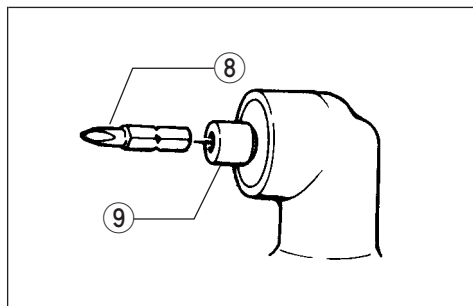
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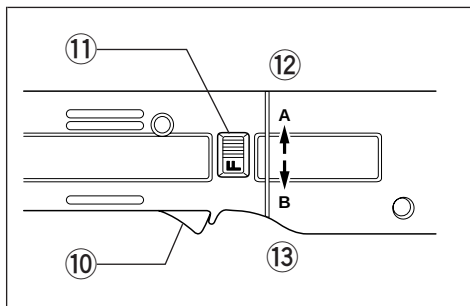
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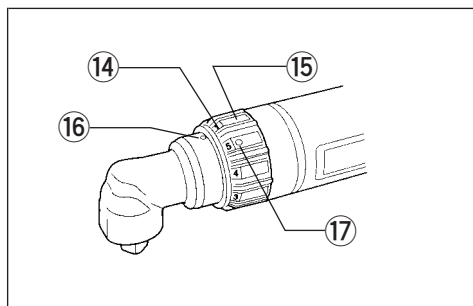
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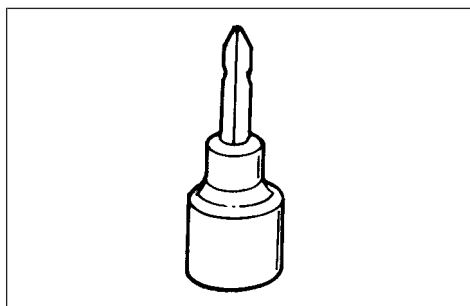
5



6



7



8

Symbols

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



☐ Indoor use only



☐ Read instruction manual.



☐ DOUBLE INSULATION



☐ Do not short batteries.



☐ Always recycle batteries.



☐ Do not discard batteries into garbage can or the like.

- | | | |
|-----------------------|-----------------------------|------------------|
| ① Battery cartridge | ⑧ Bit with Form C 6.3 shank | ⑭ Number |
| ② Set plate | ⑨ Round drive | ⑮ Adjusting ring |
| ③ Charging light | ⑩ Switch trigger | ⑯ Red mark |
| ④ Battery charger | ⑪ Reversing switch | ⑰ Screw |
| ⑤ Hole for detent pin | ⑫ Clockwise rotation | ⑱ Screw |
| ⑥ Detent pin | ⑬ Counterclockwise rotation | ⑲ Set plate |
| ⑦ Square drive | | |

SAFETY INSTRUCTIONS

WARNING! When using battery operated machines basic safety precautions, including the following, should be followed to reduce the risk of fire, leaking batteries and personal injury: Read these instructions before operating this product and save these instructions.

For safe operation:

- 1. Keep work area clean**
 - Cluttered areas and benches invite injuries.
- 2. Consider the work environment**
 - Do not expose the machine to rain. Keep work area well lit. Do not use machines in the presence of flammable liquids or gases.
- 3. Keep children away**
 - Do not let visitors touch the machine. Keep visitors away from work area.
- 4. Store batteries or idle machines**
 - When not in use, machines and batteries should be stored separately in a dry, high or locked up place, out of reach of children.
 - Ensure that battery terminals cannot be shorted by other metal parts such as screws, nails, etc.
- 5. Do not force the machine**
 - It will do the job better and safer at the rate for which it was intended.
- 6. Use the right machine**
 - Do not force small machines or attachments to do the job of a heavy duty machines. Do not use machines for purposes not intended.
- 7. Dress properly**
 - Do not wear loose clothing or jewellery, they can be caught in moving parts. Non-skid footwear is recommended when working outdoors. Wear protecting hair covering to contain long hair.
- 8. Use protective equipment**
 - Use safety glasses and if the cutting operation is dusty, a face or dust mask.
- 9. Connect dust extraction equipment**
 - If devices are provided for the connection of dust extraction and collection ensure these are connected and properly used.
- 10. Do not abuse the supply cord (if fitted)**
 - Never carry the machine by the cord or yank it to disconnect from the socket. Keep the cord away from heat, oil and sharp edges.
- 11. Secure the work**
 - Use clamps or a vice to hold the work. It is safer than using your hand and it frees both hands to operate the machine.
- 12. Do not over-reach**
 - Keep proper footing and balance at all times.

13. Maintain machines with care

- Keep cutting machines sharp and clean for better and safer performance. Follow instructions for lubrication and changing accessories. Inspect machine cords periodically and if damaged have repaired by an authorized service facility.

14. Disconnect machines

- Where the design permits, disconnect the machine from its battery pack when not in use, before servicing and when changing accessories such as blades, bits and cutters.

15. Remove adjusting keys and wrenches

- Form the habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.

16. Avoid unintentional starting

- Do not carry the machine with a finger on the switch.

17. Stay alert

- Watch what you are doing. Use common sense. Do not operate the machine when you are tired.

18. Check damaged parts

- Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service facility unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the machine if the switch does not turn it on and off.

19. Warning

- The use of any accessory or attachment, other than recommended in this instruction manual, may present a risk of personal injury.
- Ensure that the battery pack is correct for the machine.
- Ensure that the outside surface of battery pack or machine is clean and dry before plugging into charger.
- Ensure that batteries are charged using the correct charger recommended by the manufacturer. Incorrect use may result in a risk of electric shock, overheating or leakage of corrosive liquid from the battery.

20. Have your machine repaired by a qualified person

- This machine is constructed in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

21. Disposal of battery

- Ensure battery is disposed of safely as instructed by the manufacturer.

IMPORTANT SAFETY INSTRUCTIONS FOR CHARGER & BATTERY CARTRIDGE

1. **SAVE THESE INSTRUCTIONS** — This manual contains important safety and operating instructions for battery charger.
2. Before using battery charger, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
3. **CAUTION** — To reduce risk of injury, charge only MAKITA type rechargeable batteries. Other types of batteries may burst causing personal injury and damage.
4. Do not expose charger to rain or snow.
5. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
7. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
8. Do not operate charger with damaged cord or plug — replace them immediately.
9. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
10. Do not disassemble charger or battery cartridge; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
11. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

ADDITIONAL SAFETY RULES FOR CHARGER & BATTERY CARTRIDGE

1. Do not charge battery cartridge when temperature is BELOW 10°C (50°F) or ABOVE 40°C (104°F).
2. Do not attempt to use a step-up transformer, an engine generator or DC power receptacle.
3. Do not allow anything to cover or clog the charger vents.
4. Always cover the battery terminals with the battery cover when the battery cartridge is not used.
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 machine 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, shake or strike battery.
9. Do not charge inside a box or container of any kind. The battery must be placed in a well ventilated area during charging.

ADDITIONAL SAFETY RULES FOR MACHINE

1. Be aware that this machine is always in an operating condition, because it does not have to be plugged into an electrical outlet.
2. Always be sure you have a firm footing. Be sure no one is below when using the machine in high locations.
3. Hold the machine firmly.
4. When driving into walls, floors or wherever “live” electrical wires may be encountered, DO NOT TOUCH ANY METAL PARTS OF THE MACHINE! Hold the machine only by the insulated grasping surfaces to prevent electric shock if you drive into a “live” wire.
5. Check the socket carefully for wear, cracks or damage before installation.

SAVE THESE INSTRUCTIONS.

OPERATING INSTRUCTIONS

Installing or removing battery cartridge (Fig. 1)

- Always switch off the machine before insertion or removal of the battery cartridge.
- To remove the battery cartridge, pull out the set plate on the machine and grasp both sides of the cartridge while withdrawing it from the machine.
- To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Snap the set plate back into place. Be sure to close the set plate fully before using the machine.
- Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is not being inserted correctly.

Charging (Fig. 2)

1. Plug the battery charger into your power source.
2. Insert the battery cartridge so that the plus and minus terminals on the battery cartridge are on the same sides as their respective markings on the battery charger. Insert the cartridge fully into the port so that it rests on the charger port floor.
3. When the battery cartridge is inserted, the charging light color will flash in red color and charging will begin.
4. When charging is completed, the charging light goes out. The charging time is as follows:
Battery 9100 and 9100A: approx. 60 minutes.
5. If you leave the battery cartridge in the charger after the charging cycle is complete, the charger will switch into its “trickle charge (maintenance charge)” mode.
6. After charging, remove the battery cartridge from the charger and unplug the charger from the power source.

Battery type	Capacity (mAh)	Number of cells
9100	1,300	8

CAUTION:

- The battery charger is for charging Makita battery cartridge. Never use it for other purposes or for other manufacturer’s batteries.
- When you charge a new battery cartridge or a battery cartridge which has not been used for a long period of time, it may not accept a full charge. This is a normal condition and does not indicate a problem. You can recharge the battery cartridge fully after discharging it completely and recharging a couple of times.
- When you charge a battery cartridge from a just-operated machine or a battery cartridge which has been left in a location exposed to direct sunlight or heat for a long time, let it cool off. Then re-insert it and try to charge it once more.

- When you charge a new battery cartridge or a battery cartridge which has not been used for a long period, sometimes the charging light will go out soon. If this occurs, remove the battery cartridge and re-insert it. If the charging light goes out within one minute even after repeating this procedure a couple of times, the battery cartridge is dead. Replace it with a new one.

Trickle charge (Maintenance charge)

If you leave the battery cartridge in the charger to prevent spontaneous discharging after full charge, the charger will switch into its “trickle charge (maintenance charge)” mode and keep the battery cartridge fresh and fully charged.

Tips for maintaining maximum battery life

1. Charge the battery cartridge before completely discharged.
Always stop machine operation and charge the battery cartridge when you notice less machine 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.

Installing or removing socket

Important:

Always be sure that the machine is switched off and the battery cartridge is removed before installing or removing the socket.

For machine with square drive (Fig. 3 & 4)

Use 9.5 mm square drive socket with a hole for detent pin which is available on the market. (Note: Use 6.35 mm square drive socket when using the machine with 6.35 mm square drive.)

To install the socket, depress the detent pin on the square drive with your finger and push the socket onto the square drive until the detent pin is inserted into the hole in the socket.

To remove the socket, depress the detent pin with a small hand tool and pull off the socket.

For machine with round drive (Fig. 5)

Use a bit with Form C 6.3 shank which is available on the market. The bit can be inserted directly into the round drive and held in place.

To install the bit, push it firmly into the round drive.

To remove the bit, grasp it with a pair of pliers and pull it out of the round drive. Sometimes, it helps to wiggle the bit with the pliers as you pull.

Switch action (Fig. 6)

CAUTION:

Before inserting the battery cartridge into the machine, always check to see that the switch trigger actuates properly and returns to the “OFF” position when released.

To start the machine, simply pull the trigger. Release the trigger to stop.

Reversing switch action (Fig. 6)

CAUTION:

- Always check the direction of rotation before operation.
- Use the reversing switch only after the machine comes to a complete stop. Changing the direction of rotation before the machine stops may damage the machine.

This machine has a reversing switch to change the direction of rotation. Slide the reversing switch up for clockwise rotation or slide it down for counterclockwise rotation.

Overload protector

For 6704D and 6704DW

The overload protector automatically cuts out to break the circuit whenever heavy work is prolonged. Wait 20 – 30 seconds before resuming operation.

Adjusting the fastening torque (Fig. 7)

The fastening torque can be adjusted infinitely from approx. 20 kg·cm to 80 kg·cm. To adjust it, loosen the two screws and turn the adjusting ring. Then tighten the screws to secure the adjusting ring. Refer to the table below for relation between the numbers on the adjusting ring and the fastening torque to be obtained.

Numbers on adjusting ring	Fastening torque to be obtained
1	20 kg·cm
2	35 kg·cm
3	48 kg·cm
4	60 kg·cm
5	80 kg·cm

(Example)

35 kg·cm of fastening torque can be obtained when the number 2 is aligned to the red mark.

NOTE:

- Always tighten the two screws to secure the adjusting ring after adjusting the fastening torque.
- The fastening torque may differ depending upon the kind of screws, the type of materials to be fastened, etc. Before starting your job, always perform a test operation to verify the adequate fastening torque.

Installing set plate (Fig. 8)

Always install the set plate when using battery cartridges 9100, 9102 or 9102A. Install the set plate on the machine with the screw provided as shown in Fig. 8.

Operation

The proper fastening torque may differ depending upon the kind or size of screws, the type of materials to be fastened, the condition of the threads, etc. Before starting your job, always perform a test operation to verify adequate fastening torque. Hold the machine firmly with both hands whenever possible and place the socket over the bolt or nut. Then turn the machine on. As soon as the bolt or nut becomes tight, the clutch will cut in and the motor will stop automatically. Release the switch trigger.

When fastening machine screws, use the proper screwdriver bit shown in Fig. 9. It is commonly available on the market.

For 6706D and 6706DW

When the battery capacity decreases to a certain level, the motor will not start even if you press the switch trigger. This mechanism prevents poor fastening caused by battery voltage-drop. Charge the battery cartridge to resume operation.

NOTE:

- 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.
- Hold the machine with its square drive pointed straight at the bolt or nut, or the bolt or nut will be damaged.
- If the motor will not start even after you pull the trigger, release the trigger. Then pull the trigger again after turning the socket slightly with your fingers.

MAINTENANCE

CAUTION:

Always be sure that the machine is switched off and the battery cartridge is removed before carrying out any work on the machine.

To maintain product safety and reliability, repairs, maintenance or adjustment should be carried out by a Makita Authorized Service Center.

Makita Corporation

Anjo, Aichi Japan

Made in Japan

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