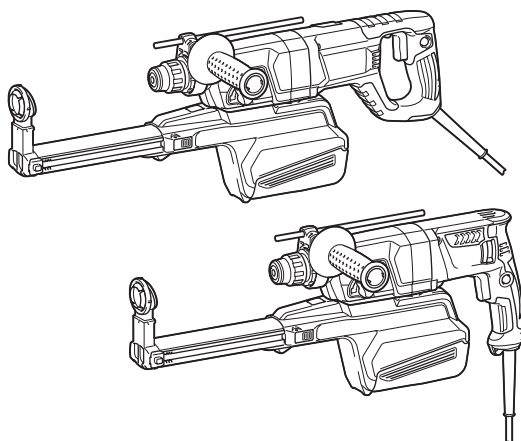


INSTRUCTION MANUAL



Combination Hammer with Self Dust Collection

HR2650
HR2651
HR2651T
HR2661



DOUBLE INSULATION



Read before use.

SPECIFICATIONS

Model:		HR2650	HR2651	HR2651T	HR2661
Capacities	Concrete	26 mm			
	Core bit	68 mm			
	Diamond core bit (dry type)	80 mm			
	Steel	13 mm			
	Wood	32 mm			
No load speed		0 - 1,200 min ⁻¹			0 - 1,100 min ⁻¹
Blows per minute		0 - 4,600 min ⁻¹			0 - 4,500 min ⁻¹
Overall length		604 mm		630 mm	666 mm
Net weight		3.0 - 4.1 kg	3.1 - 4.2 kg	3.2 - 4.4 kg	3.3 - 4.4 kg
Safety class		□/II			

- 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). The lightest and heaviest combination, according to EPTA-Procedure 01/2014, are shown in the table.

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 the European Directive, 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.

Intended use

The tool is intended for hammer drilling and drilling in brick, concrete and stone. It is also suitable for drilling without impact in wood, metal, ceramic and plastic.

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 and can, therefore, also be used from sockets without earth wire.

SAFETY WARNINGS

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

1. **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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

4. **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.
 5. **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.
 6. **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.
 7. **Use of power supply via an RCD with a rated residual current of 30 mA or less is always recommended.**
4. **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.
 5. **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.
 6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 7. **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.

Personal Safety

1. **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.
2. **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
3. **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.
4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **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.
7. **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

1. **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.
2. **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.
3. **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.

Service

1. **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.
2. **Follow instruction for lubricating and changing accessories.**
3. **Keep handles dry, clean and free from oil and grease.**

ROTARY HAMMER SAFETY WARNINGS

1. **Wear ear protectors.** Exposure to noise can cause hearing loss.
2. **Use auxiliary handle(s), if supplied with the tool.** Loss of control can cause personal injury.
3. **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
4. **Wear a hard hat (safety helmet), safety glasses and/or face shield. Ordinary eye or sun glasses are NOT safety glasses. It is also highly recommended that you wear a dust mask and thickly padded gloves.**
5. **Be sure the bit is secured in place before operation.**
6. **Under normal operation, the tool is designed to produce vibration. The screws can come loose easily, causing a breakdown or accident. Check tightness of screws carefully before operation.**
7. **In cold weather or when the tool has not been used for a long time, let the tool warm up for a while by operating it under no load. This will loosen up the lubrication. Without proper warm-up, hammering operation is difficult.**
8. **Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.**

9. Hold the tool firmly with both hands.
10. Keep hands away from moving parts.
11. Do not leave the tool running. Operate the tool only when hand-held.
12. Do not point the tool at any one in the area when operating. The bit could fly out and injure someone seriously.
13. Do not touch the bit, parts close to the bit, or workpiece immediately after operation; they may be extremely hot and could burn your skin.
14. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
15. Do not touch the power plug with wet hands.

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.

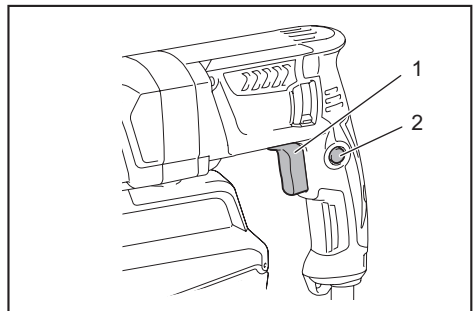
FUNCTIONAL DESCRIPTION

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

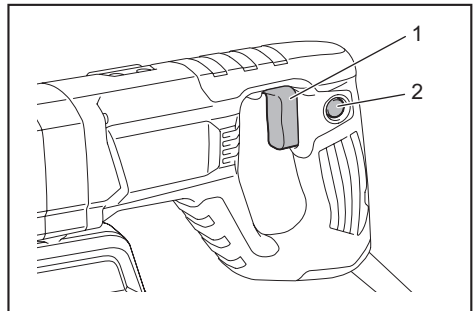
Switch action

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

⚠CAUTION: Switch can be locked in "ON" position for ease of operator comfort during extended use. Apply caution when locking tool in "ON" position and maintain firm grasp on tool.



► 1. Switch trigger 2. Lock button



► 1. Switch trigger 2. Lock button



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 continuous operation, pull the switch trigger, push in the lock button and then release the switch trigger. To stop the tool from the locked position, pull the switch trigger fully, then release it.



Reversing switch action

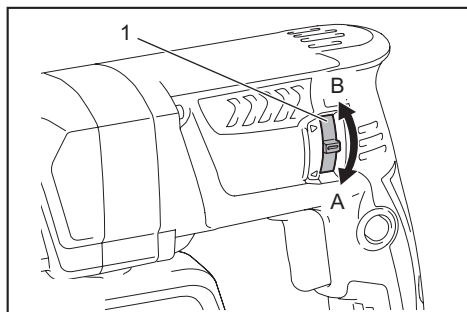
CAUTION: Always check the direction of rotation before operation.

NOTICE: 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.

NOTICE: If the switch trigger cannot be depressed, check to see that the reversing switch is fully set to position  (A side) or  (B side).



For HR2650/HR2651/HR2651T

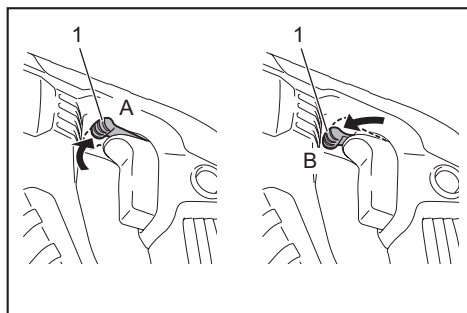
This tool has a reversing switch to change the direction of rotation. Move the reversing switch lever to the position  (A side) for clockwise rotation or to the position  (B side) for counterclockwise rotation.



► 1. Reversing switch lever

For HR2661

This tool has a reversing switch to change the direction of rotation. Move the reversing switch lever to the  position (A side) for clockwise rotation or the  position (B side) for counterclockwise rotation.



► 1. Reversing switch lever

NOTE: When you operate the tool in counterclockwise rotation, the switch trigger is pulled only halfway and the tool runs at half speed. For counterclockwise rotation, you cannot push in the lock button.



Changing the quick change chuck for SDS-plus

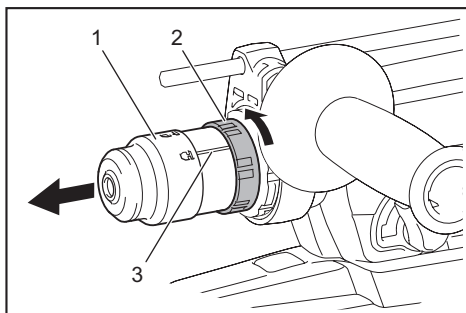
For HR2651T

The quick change chuck for SDS-plus can be easily exchanged for the quick change drill chuck.

Removing the quick change chuck for SDS-plus




CAUTION: Before removing the quick change chuck for SDS-plus, be sure to remove the bit.

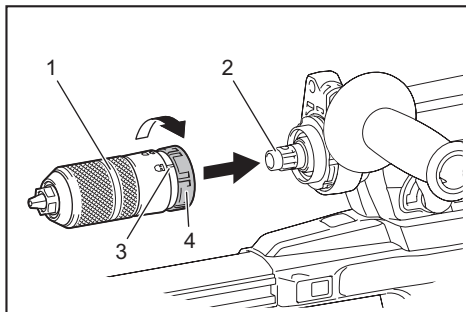
Grasp the change cover of the quick change chuck for SDS-plus and turn in the direction of the arrow until the change cover line moves from the  symbol to the  symbol. Pull forcefully in the direction of the arrow.



► 1. Quick change chuck for SDS-plus 2. Change cover 3. Change cover line

Installing the quick change drill chuck

Check the line of the quick change drill chuck shows the  symbol. Grasp the change cover of the quick change drill chuck and set the line to the  symbol. Place the quick change drill chuck on the spindle of the tool. Grasp the change cover of the quick change drill chuck and turn the change cover line to the  symbol until a click can clearly be heard.




► 1. Quick change drill chuck 2. Spindle 3. Change cover line 4. Change cover

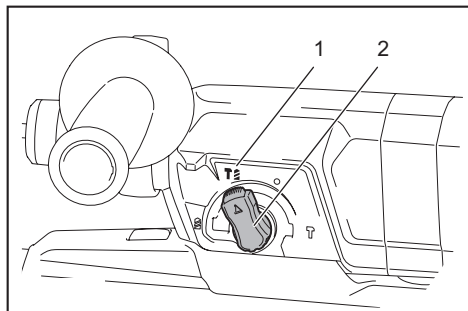
Selecting the action mode

NOTICE: Do not rotate the action mode changing knob when the tool is running. The tool will be damaged.

NOTICE: To avoid rapid wear on the mode change mechanism, be sure that the action mode changing knob is always positively located in one of the three action mode positions.


Rotation with hammering

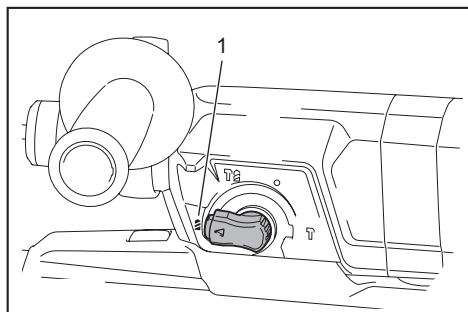
For drilling in concrete, masonry, etc., rotate the action mode changing knob to the  symbol. Use a tungsten-carbide tipped bit (optional accessory).



- 1. Rotation with hammering 2. Action mode changing knob


Rotation only

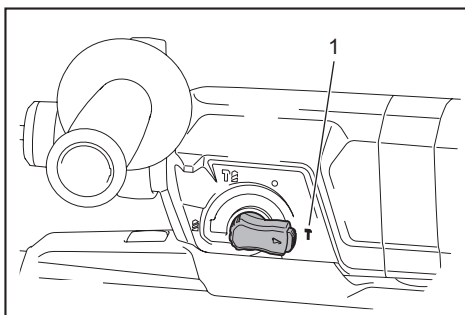
For drilling in wood, metal or plastic materials, rotate the action mode changing knob to the  symbol. Use a twist drill bit or wood drill bit.



- 1. Rotation only

Hammering only

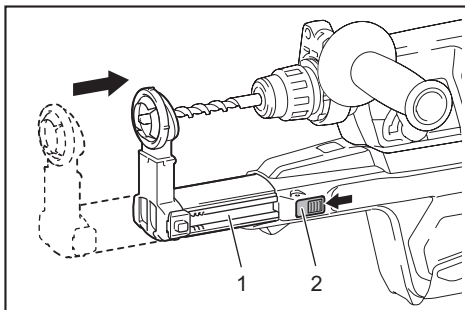
For chipping, scaling or demolition operations, rotate the action mode changing knob to the  symbol. Use a bull point, cold chisel, scaling chisel, etc.



- 1. Hammering only

Adjusting the nozzle position

Push in the guide while pressing the guide adjustment button, and then release the button at the desired position.

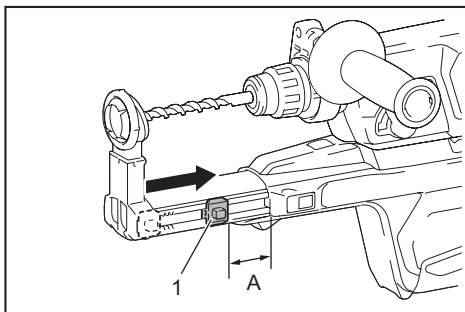


- 1. Guide 2. Guide adjustment button

NOTE: Before adjusting the nozzle position, release the nozzle forward completely by pressing the guide adjustment button.

Adjusting the drilling depth

Slide the depth adjustment button to the desired position while pressing it. The distance (A) is the drilling depth.



- 1. Depth adjustment button

Torque limiter

NOTICE: As soon as the torque limiter actuates, switch off the tool immediately. This will help prevent premature wear of the tool.

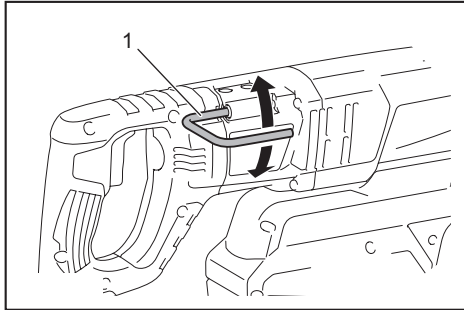
NOTICE: Drill bits such as hole saw, which tend to pinch or catch easily in the hole, are not appropriate for this tool. This is because they will cause the torque limiter to actuate too frequently.

The torque limiter will actuate when a certain torque level is reached. The motor will disengage from the output shaft. When this happens, the drill bit will stop turning.

Hook

CAUTION: Never hook the tool at high location or on potentially unstable surface.

For HR2661



► 1. Hook

The hook is convenient for temporarily hanging the tool. To use the hook, simply lift up hook until it snaps into the open position. When not in use, always lower hook until it snaps into the closed position.

ASSEMBLY

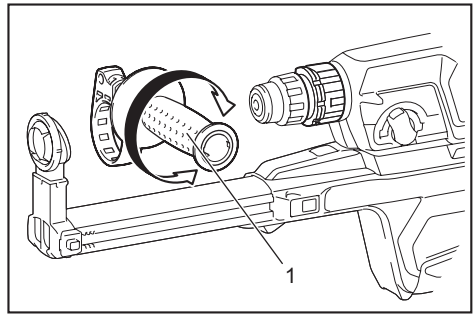
CAUTION: Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Side grip (auxiliary handle)

CAUTION: Always use the side grip to ensure safe operation.

CAUTION: After installing or adjusting the side grip, make sure that the side grip is firmly secured.

Install the side grip so that the grooves on the grip fit in the protrusions on the tool barrel. Turn the grip clockwise to secure it. The grip can be fixed at desired angle.



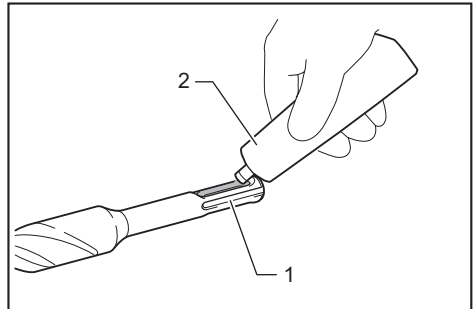
► 1. Side grip

Grease

Coat the shank end of the drill bit beforehand with a small amount of grease (about 0.5 - 1 g). This chuck lubrication assures smooth action and longer service life.

Installing or removing drill bit

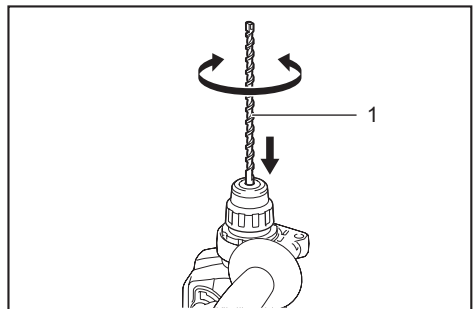
Clean the shank end of the drill bit and apply grease before installing the drill bit.



► 1. Shank end 2. Grease

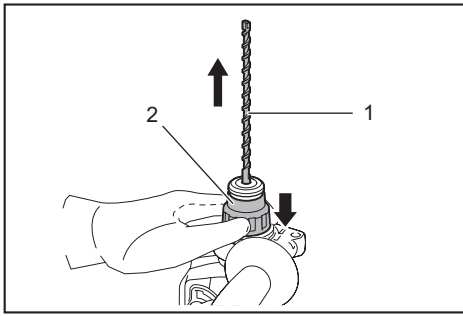
Insert the drill bit into the tool. Turn the drill bit and push it in until it engages.

After installing the drill bit, always make sure that the drill bit is securely held in place by trying to pull it out.



► 1. Drill bit

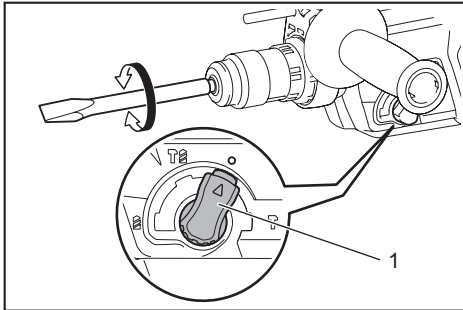
To remove the drill bit, pull the chuck cover down all the way and pull the drill bit out.



► 1. Drill bit 2. Chuck cover

Chisel angle (when chipping, scaling or demolishing)

The chisel can be secured at the desired angle. To change the chisel angle, rotate the action mode changing knob to the O symbol. Turn the chisel to the desired angle.

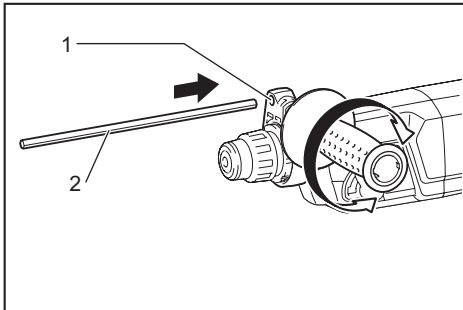


► 1. Action mode changing knob

Rotate the action mode changing knob to the T symbol. Then make sure that the chisel is securely held in place by turning it slightly.

Depth gauge

The depth gauge is convenient for drilling holes of uniform depth. Loosen the side grip and insert the depth gauge into the hole on the side grip. Adjust the depth gauge to the desired depth and tighten the side grip firmly.

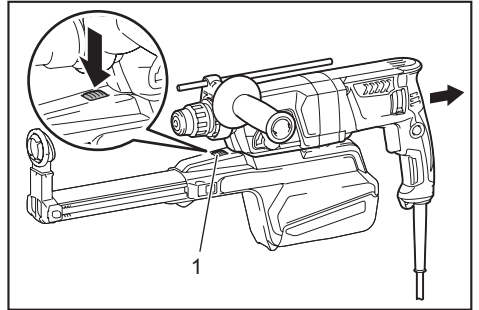


► 1. Hole 2. Depth gauge

NOTE: Make sure that the depth gauge does not touch the main body of the tool when attaching it.

Installing or removing dust collection system

To remove the dust collection system, pull the tool while pressing the lock-off button. To install it, insert the tool into the dust collection system all the way until it locks in place with a little click.



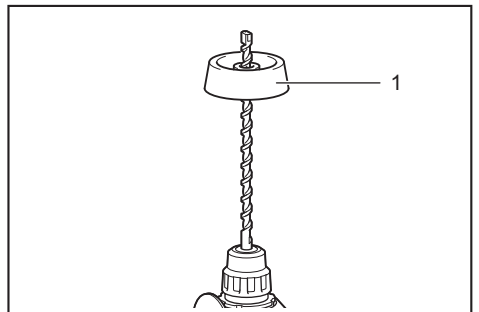
► 1. Lock-off button

Dust cup

Optional accessory

Use the dust cup to prevent dust from falling over the tool and on yourself when performing overhead drilling operations. Attach the dust cup to the bit as shown in the figure. The size of bits which the dust cup can be attached to is as follows.

Model	Bit diameter
Dust cup 5	6 mm - 14.5 mm
Dust cup 9	12 mm - 16 mm



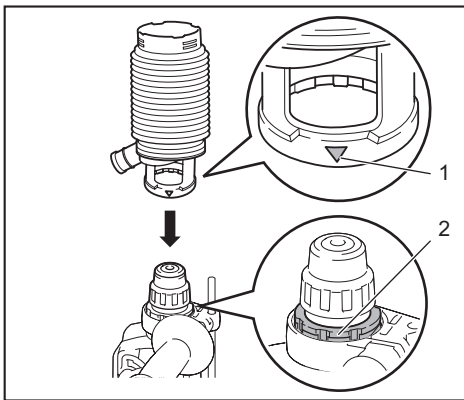
► 1. Dust cup

Dust cup set

Optional accessory

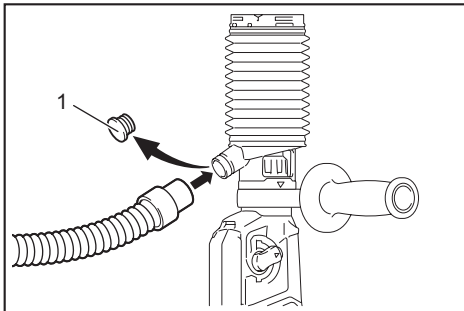
Before installing the dust cup set, remove the bit from the tool if installed.

Install the dust cup set on the tool so that the Δ symbol on the dust cup is aligned with the groove in the tool.



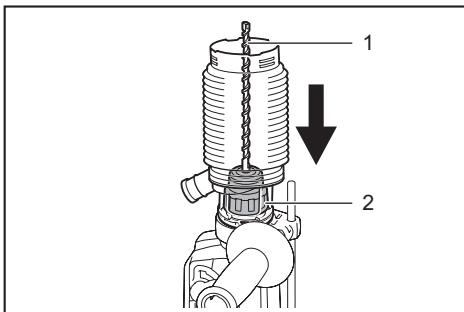
► 1. △ symbol 2. Groove

NOTE: If you connect a vacuum cleaner to the dust cup set, remove the dust cap before connecting it.



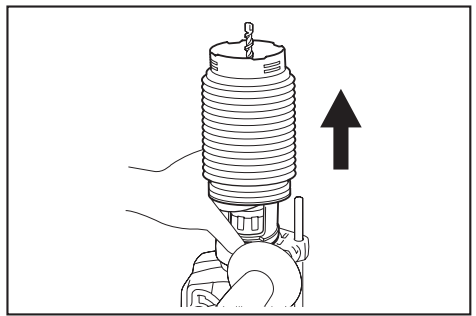
► 1. Dust cap

To remove the dust cup set, remove the bit while pulling the chuck cover in the direction of the arrow.

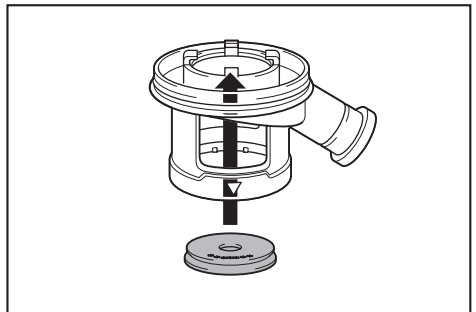


► 1. Bit 2. Chuck cover

Hold the root of dust cup and pull it out.



NOTE: If the cap comes off from the dust cup, attach it with its printed side facing up so that groove on the cap fits in the inside periphery of the attachment.



OPERATION

CAUTION: Always use the side grip (auxiliary handle) and firmly hold the tool by both side grip and switch handle during operations.

CAUTION: Always make sure that the workpiece is secured before operation.

CAUTION: The dust collection system is intended for drilling in concrete only. Do not use the dust collection system for drilling in metal or wood.

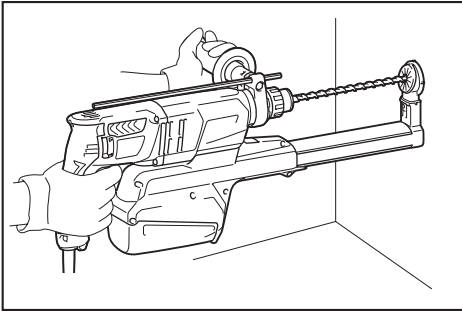
CAUTION: When using the tool with the dust collection system, be sure to attach the filter to the dust collection system to prevent dust inhalation.

CAUTION: Before using the dust collection system, check that the filter is not damaged. Failure to do so may cause dust inhalation.

CAUTION: The dust collection system collects the generated dust at a considerable rate, but not all dust can be collected.


NOTICE: Do not use the dust collection system for core drilling or chiseling.

NOTICE: Do not use the dust collection system for drilling in wet concrete or use this system in wet environment. Failure to do so may cause malfunction.



Hammer drilling operation


CAUTION: There is tremendous and sudden twisting force exerted on the tool/drill bit at the time of hole break-through, when the hole becomes clogged with chips and particles, or when striking reinforcing rods embedded in the concrete. **Always use the side grip (auxiliary handle) and firmly hold the tool by both side grip and switch handle during operations.** Failure to do so may result in the loss of control of the tool and potentially severe injury.

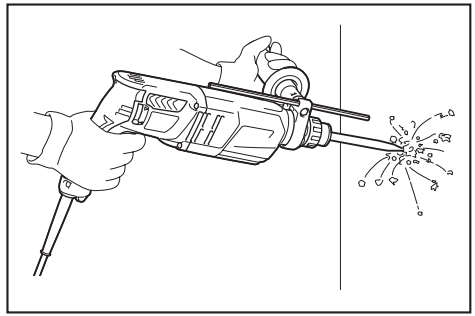
Set the action mode changing knob to the  symbol. Position the drill bit at the desired location for the hole, then pull the switch trigger. Do not force the tool. Light pressure gives best results. Keep the tool in position and prevent it from slipping away from the hole.

Do not apply more pressure when the hole becomes clogged with chips or particles. Instead, run the tool at an idle, then remove the drill bit partially from the hole. By repeating this several times, the hole will be cleaned out and normal drilling may be resumed.

NOTE: Eccentricity in the drill bit rotation may occur while operating the tool with no load. The tool automatically centers itself during operation. This does not affect the drilling precision.

Chipping/Scaling/Demolition

Set the action mode changing knob to the  symbol. Hold the tool firmly with both hands. Turn the tool on and apply slight pressure on the tool so that the tool will not bounce around, uncontrolled. Pressing very hard on the tool will not increase the efficiency.



Drilling in wood or metal

CAUTION: Hold the tool firmly and exert care when the drill bit begins to break through the workpiece. There is a tremendous force exerted on the tool/drill bit at the time of hole break through.

CAUTION: A stuck drill bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hold it firmly.

CAUTION: Always secure workpieces in a vise or similar hold-down device.

NOTICE: Never use "rotation with hammering" when the drill chuck is installed on the tool. The drill chuck may be damaged.

Also, the drill chuck will come off when reversing the tool.

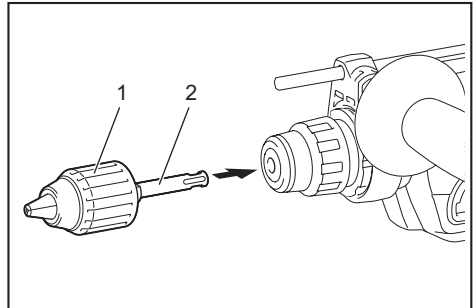
NOTICE: Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your drill bit, decrease the tool performance and shorten the service life of the tool.

Set the action mode changing knob to the  symbol.

For HR2650/HR2651/HR2661

Optional accessory

Attach the chuck adapter to a keyless drill chuck to which 1/2"-20 size screw can be installed, and then install them to the tool. When installing it, refer to the section "Installing or removing drill bit".

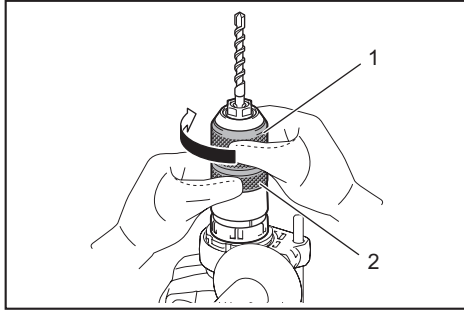


► 1. Keyless drill chuck 2. Chuck adapter

For HR2651T

Use the quick change drill chuck as standard equipment. When installing it, refer to "changing the quick change chuck for SDS-plus".

Hold the ring and turn the sleeve counterclockwise to open the chuck jaws. Place the bit in the chuck as far as it will go. Hold the ring firmly and turn the sleeve clockwise to tighten the chuck.




► 1. Sleeve 2. Ring

To remove the bit, hold the ring and turn the sleeve counterclockwise.

Diamond core drilling

NOTICE: If performing diamond core drilling operations using "rotation with hammering" action, the diamond core bit may be damaged.

When performing diamond core drilling operations, always set the change lever to the  position to use "rotation only" action.

Disposing of dust

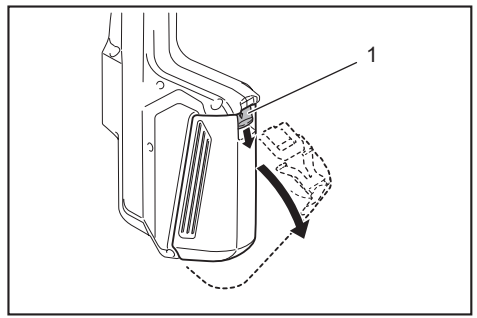
CAUTION: Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

CAUTION: Be sure to wear dust mask when disposing of dust.

CAUTION: Empty the dust case regularly before the dust case becomes full. Failure to do so may decrease the dust collection performance and cause dust inhalation.

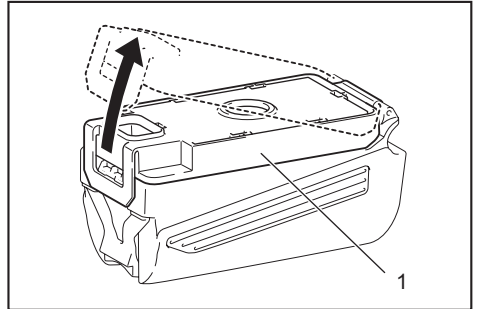
CAUTION: The performance of dust collection decreases if the filter in the dust case become clogged. Replace the filter with new one after approximately 200 times of dust fulfillment as a guide. Failure to do so may cause dust inhalation.

1. Remove the dust case while pressing down the lever of the dust case.



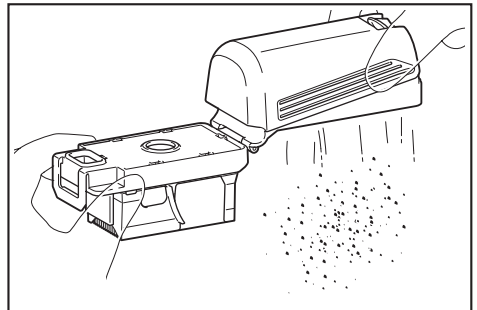
► 1. Lever

2. Open the cover of the dust case.



► 1. Cover

3. Dispose of the dust, and then clean the filter.

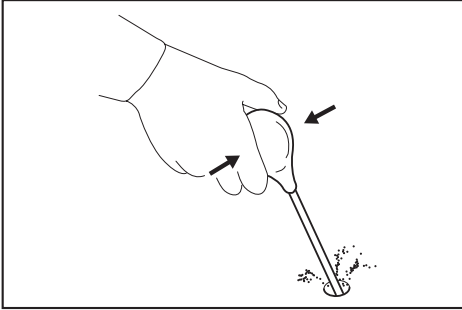


NOTICE: When cleaning the filter, do not touch the filter with brush or similar, or blow compressed air on the filter. It may damage the filter.

Blow-out bulb

Optional accessory

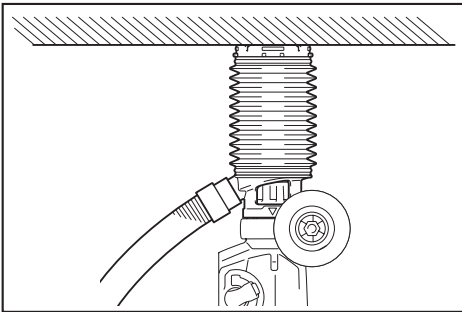
After drilling the hole, use the blow-out bulb to clean the dust out of the hole.



Using dust cup set

Optional accessory

Fit the dust cup set against the ceiling when operating the tool.



NOTICE: Do not use the dust cup set when drilling in metal or similar. It may damage the dust cup set due to the heat produced by small metal dust or similar.

NOTICE: Do not install or remove the dust cup set with the drill bit installed in the tool. It may damage the dust cup set and cause dust leak.

MAINTENANCE

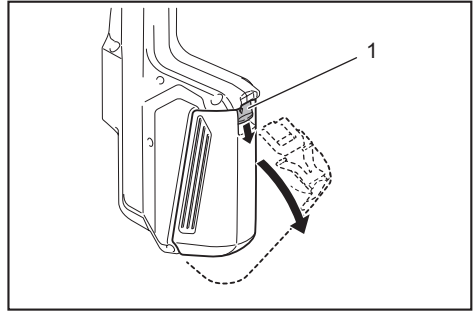
CAUTION: Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

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.

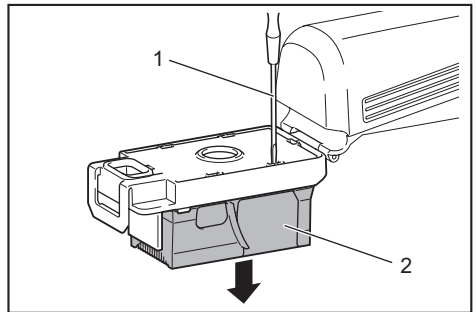
Replacing filter of dust case

1. Remove the dust case while pressing down the lever of the dust case.



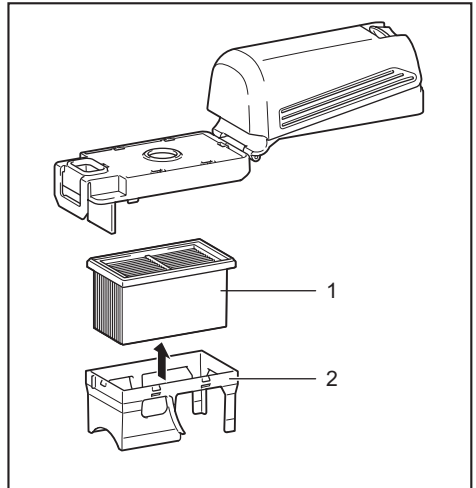
► 1. Lever

2. Insert the flat-blade screwdriver into the slots of the filter cover to remove the filter case and filter.



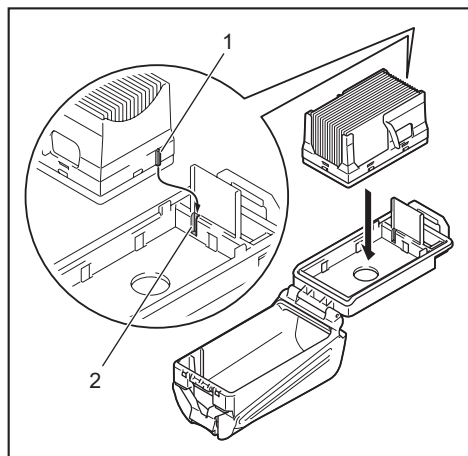
► 1. Flat-blade screwdriver 2. Filter case

3. Remove the filter from the filter case.



► 1. Filter 2. Filter case

4. Attach a new filter to the filter case, and then attach them to the dust case aligning the protrusion on the filter case with the groove on the dust case.

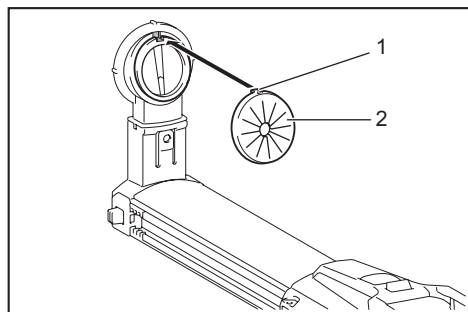


► 1. Protrusion 2. Groove

5. Close the cover of the dust case, and then attach it to the tool.

Replacing sealing cap

If the sealing cap is worn out, the performance of the dust collection decreases. Replace it if it's worn out. Remove the sealing cap, and then attach a new one with its protrusion facing upward.



► 1. Protrusion 2. Sealing cap

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.

- Carbide-tipped drill bits (SDS-Plus carbide-tipped bits)
- Core bit
- Bull point
- Diamond core bit
- Cold chisel
- Scaling chisel
- Grooving chisel
- Chuck adapter
- Keyless drill chuck
- Bit grease
- Depth gauge
- Blow-out bulb
- Dust cup
- Dust cup set
- Safety goggles
- Plastic carrying case

NOTE: Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

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