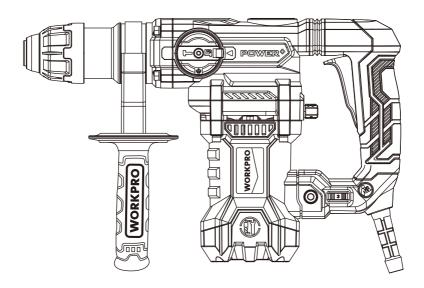
WORKPRO

12.5A ROTARY HAMMERORIGINAL OPERATING INSTRUCTION



Model#: Z1C-DS-32MA/T

Thank you for buying a WORKPRO rotary hammer. Your new rotary hammer has been engineered and manufactured to WORKPRO's high standard for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.



MARNING: To reduce the risk of injury, the user must read and understand the operator's manual.

SAVE THIS MANUAL FOR FUTURE REFERENCE



Distributed by : Hangzhou GreatStar Industrial Co., Ltd. No.35 Jiuhuan Road, Jiubao Town, Hangzhou 310019, China www.greatstartools.com Made in China

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INTRODUCTION

The machine is intended for hammer drilling in concrete, brick and stone, as well as for chiselling work. It is also suitable for drilling without impact in wood, metal, ceramic and plastic.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

MARNING:

Do not attempt to use this tool until you have read thoroughly and understand completely the operator's manual. Pay close attention to the safety rules, including Dangers, Warnings, and Cautions. If you use your tool properly and only for what it is intended, you will enjoy years of safe, reliable service.

⚠ WARNING:

Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always wear eye protection.

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

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

ELECTRICAL SAFETY

- 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.
- 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.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 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.
- 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.
- If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

PERSONAL SAFETY

- 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.
- 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.
- 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.
- 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.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 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.
- 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.
- Do not wear loose clothing or jewelry. Contain long hair. Loose clothes, jewelry, or long hair can be drawn into air vents.
- Do not use on a ladder or unstable support.

 Stable footing on a solid surface enables better control of the power tool in unexpected situations.
- Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

POWER TOOL USE AND CARE

- 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.
- 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.
- 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.
- 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.

GENERAL POWER TOOL SAFETY WARNINGS

- 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.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 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.
- Use clamps (not included) or other practical ways 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 and personal injury
- Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

■ The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SERVICE

- 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.
- When servicing a power 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.

ROTARY HAMMER SAFETY WARNINGS

- Wear ear protectors. Exposure to noise can cause hearing loss.
- Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.
- Hold power tools by insulated gripping surfaces, when performing an operation where the cutting tool 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.
- Use a metal detector to determine if there are gas or water pipes hidden in the work area or call the local utility company for assistance before beginning the operation. Striking or cutting into a gas line will result in explosion. Water entering an electrical device may cause electrocution.
- Always use the side handle for maximum control over torque reaction or kick-back. Never attempt to operate this tool with one hand. The slip clutch engages if you firmly control the tool during a torque reaction or kickback.
- Always wear safety goggles or eye protection when using this tool. Use a dust mask or respirator for applications which generate dust. Safety goggles or eye protection will help deflect fragments of the material that may be thrown toward your face and eyes. Dust generated or gases released from the material you are cutting (i.e. asbestos insulated pipes, radon) may cause respiratory difficulties.

- Use thick cushioned gloves and limit the exposure time by taking frequent rest periods. Vibration caused by hammer-drill action may be harmful to your hands and arms.
- Position the cord clear of rotating bit. Do not wrap the cord around your arm or wrist.If cord becomes entangled with the spinning bit it could entrap you causing serious personal injury.
- Position yourself to avoid being caught between the tool or side handle and walls or posts.

 Should the bit become bound or jammed in the work, the reaction torque of the tool could crush your hand or leg.
- Do not strike the bit with a handheld hammer or sledge hammer when attempting to dislodge a bound or jammed bit. Fragments of metal from the bit could dislodge and strike you or bystanders.
- Never place the tool down until the bit or accessory have come to a complete stop.
- Do not use dull or damaged bits and accessories. Dull or damaged bits have a greater tendency to bind in the workpiece.

Safety instructions when using long drill bits:

always start drilling at low speed and with the bit tip in contact with the workpiece. At higher speeds, the bit is likely to bend if allowed to ratate freely without contacting the workpiece, resulting in personal injury.

ROTARY HAMMER SAFETY WARNINGS

- apply pressure only in direct line with the bit and do not apply excessive pressure. Bits can bend, causing breakage or loss of control, resulting in personal injury.
- When removing the bit from the tool avoid contact with skin and use proper protective
- gloves when grasping the bit or accessory. Accessories may be hot after prolonged use.
- Do not run the tool while carrying it at your side . The spinning drill bit may become entangled with clothing and injury may result.

ADDITIONAL SAFETY WARNINGS

- GFCI and personal protection devices like electrician's rubber gloves and footwear will further enhance your personal safety.
- Do not use AC only rated tools with a DC power supply. While the tool may appear to work, the electrical components of the AC rated tool are likely to fail and create a hazard to the operator.
- Keep handles dry, clean and free from oil and grease. Slippery hands cannot safely control the power tool.
- Develop a periodic maintenance schedule for your tool. When cleaning a tool be careful not to disassemble any portion of the tool since internal wires may be misplaced or pinched. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.
- If the supply cord of this power tool is damaged, it must be replaced by a specially prepared supply cord available through the service organization.

↑ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically- treated lumber.
- Your risk from these exposures varies, depending on how often you do this type of work . To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- Working safely with this machine possible only when the operating and safety information are read completely and the instructions contained therein are strictly followed.
- Before using for the first time, ask for a practical demonstration.
- If the cable is damaged or cut through while working ,do not touch the cable but immediately pull the mains plug.
- Never use the machine with a damaged cable.
- The machine must not be damp and must not be operated in a wet environment.
- Keep long hair away from the machine.
- Do not operate while wearing loose clothing.
- Connect the mains plug only when the tool is switched off. After using, pull the mains plug.
- Always direct the cable to the rear away from the machine.
- Do not carry the machine by the cable.
- When working with the machine, always hold it firmly with both hands and provide for a secure stance.
- During pauses in the work, when not in use or during work on the machine itself (e.g., changing of the working tools, repairs, cleaning, adjustments), pull the mains plug.
- Persons under 16 year of age are not permitted to operate this machine.
- Keep the tool accessories out of the reach of children.
- Only use original accessories.

SYMBOLS

The following	The following signal words and meanings are intended to explain the levels of risk associated with this product.				
SYMBOL	SYMBOL SIGNAL MEANING				
DANGER: Indicates an imminently hazardous situation, which, if not avoided, in death or serious injury.					
WARNING:		Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.			
CAUTION:		Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.			
	NOTICE:	(Without Safety Alert Symbol) Indicates important information not related to an injury hazard, such as a situation that may result in property damage.			

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer. SYMBOL NAME DESIGNATION/EXPLANATION Safety Alert Indicates a potential personal injury hazard. To reduce the risk of injury, user must read and understand Read Operator's Manual operator's manual before using this product. Eye Protection Always wear eye protection with side shields marked to comply with ANSI Z87.1. Wet Conditions Alert Do not expose to rain or use in damp locations. Volts Voltage Current Amperes Hz Hertz Frequency (cycles per second) min Minutes Time \sim Alternating Current Type of current No Load Speed Rotational speed, at no load Class II Construction Double-insulated construction Per Minute Revolutions, strokes, surface speed, orbits etc., per minute .../min

ELECTRICAL

DOUBLE INSULATION

Double insulation is a concept in safety in electric power tools, which eliminates the need for the usual three-wire grounded power cord. All exposed metal parts are isolated from the internal metal motor components with protecting insulation. Double insulated tools do not need to be grounded.

↑ WARNING:

The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal insulation. Observe all normal safety precautions to avoid electrical shock.

NOTE: Servicing of a product with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For service, we suggest you return the product to your nearest authorized service center for repair. Always use original factory replacement parts when servicing.

ELECTRICAL CONNECTION

This product has a precision-built electric motor. It should be connected to a power supply that is 120 volts, AC only (normal household current), 60 Hz, . Do not operate this product on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If the product does not operate when plugged into an outlet, double-check the power supply.

EXTENSION CORDS

When using a power tool at a considerable distance from a power source, be sure to use an extension cord that has the capacity to handle the current the product will draw. An undersized cord will cause a drop in line voltage, resulting in overheating and loss of power. Use the chart to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

When working outdoors with a product, use an extension cord that is designed for outside use. This type of cord is designated with "W-A" or "W" on the cord's jacket.

Before using any extension cord, inspect it for loose or exposed wires and cut or worn insulation.

**Ampere	rating	(on	product	data	nlate)
Ampere	raung	(OII	product	uata	plate)

		0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0
Cord Length			Wire Size (A.W.G.)				
Ī	25'	16	16	16	16	14	14
	50'	16	16	16	14	14	12
	100'	16	16	14	12	10	_

**Used on 12 gauge - 20 amp circuit. NOTE: AWG = American Wire Gauge

⚠ WARNING:

Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools, or other obstructions while you are working with a power tool. Failure to do so can result in serious personal injury.

⚠ WARNING:

Check extension cords before each use. If damaged replace immediately. Never use the product with a damaged cord since touching the damaged area could cause electrical shock resulting in serious injury.

SPECIFICATIONS

Input	120V~ 60Hz
Rated power	12.5A
Max.applicable diameter	3/8"(10mm)
No Load speed(RPM)	0-930 /min
Impact rates(BPM)	0-4300/min
Drilling capacity in	Steel 1/2"(13 mm)
	Wood 1-5/8" (42mm)
	Concrete 1-1/4"(32mm)
Chuck	SDS-plus
Product net weight	11.2Lb(5.1kg)

UNPACKING

INSTRUCTIONS

Your rotary hammer has been shipped completely assembled.

- Carefully remove the tool and accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

PACKING LIST

Rotary Hammer	
Φ8/Φ10/Φ12×150mm SDS+ drill bits each·······1	piece
Φ14×250mm point chisel and flat chisel each	
1	piece
Grease tube ·····1	piece
Auxiliary Handle ·····1	
Spanner1	piece
Dust cup1	piece

Carbon brushes -----1pair

Operator's Manual MARNING:

If any parts are missing do not operate your tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

FEATURES

ELECTRIC MOTOR

Your rotary hummer has a precision built electric motor. It should be connected to a power supply that is 120 Volts,60Hz, AC only (normal household current). Do not operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If your tool does not operate when plugged into an outlet, double-check the power supply.

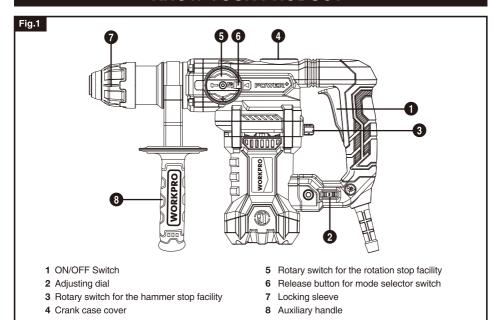
SWITCH

- On/Off
- Variable speed

ERGONOMIC DESIGN

The design of the rotary hammer provides for easy handling. It is designed for comfort and ease of grasp when operating in different positions and at different angles.

KNOW YOUR PRODUCT



OPERATION

SWITCH ACTION

M WARNING:

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

■ To switch on: Press and hold the ON/OFF switch (1). To switch off: Let go of the ON/OFF switch (1)

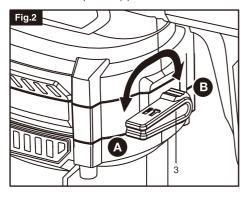
SPEED CONTROL DIAL

■ The speed/impact rate of the switched on power tool can be variably adjusted in the hammer and drill mode by turn the adjusting dial (2),the dial is marked 1 (lowest speed) to 6 (full speed).

HAMMER STOP FACILITY(Fig.2)

The hammer drill has a hammer stop facility for gentle initial drilling.

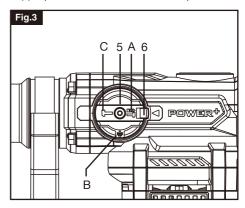
- Turn the rotary switch for the hammer stop facility (3) to position (B) to switch off the hammer facility.
- To switch on the hammer facility again the rotary switch for the hammer stop facility (3) must be turned back to position (A).



ROTATION STOP FACILITY(Fig.3)

■ For hammer drilling, press the button (6) on the rotary switch (5) and simultaneously turn the rotary switch (5) to position A.

- For adjustment of the chiseling position, press the button (6) on the rotary switch (5) and simultaneously turn the rotary switch (5) to position B. In switch position B the chisel is not locked.
- For chiseling, press the button (6) on the rotary switch (5) and simultaneously turn the rotary switch (5) to position C. The chisel is locked in position C.



SETTING THE OPERATING MODE(Fig.4)

The operating mode of the power tool is selected with the rotary switch for rotation stop facility (3) and rotary switch for hammer stop facility (5).

- A: Position for hammer drilling in concrete or stone.
- B: Position for drilling without impact in wood, metal, ceramic and plastic as well as for screwdriving.
- C: Vario-lock position for adjustment of the chiseling position.
- D: Position for chiseling.
- E: No function.

NOTE: Change the operating mode only when the machine is switched off! Otherwise, the machine can be damaged.

OPERATION

Fig.4 В C D Ε

OPERATION

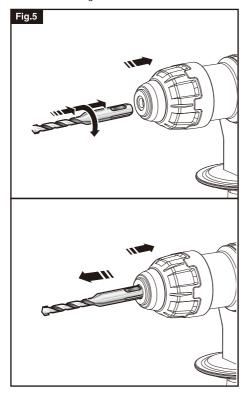
INSTALLING OR REMOVING THE BIT (Fig.5)

- Clean and lightly lubricate accessory before insertion.
- Pull back locking sleeve (7) and insert accessory in SDS+ chuck while turning and pushing it until it engages; the accessory locks in position automatically.
- Pull accessory to check that it is locked correctly.
- Remove accessory by pulling back locking sleeve (7).

↑ WARNING:

Do not use bits/chisels with a damaged shank .

- Safety clutch if the accessory gets jammed, the drive to the spindle is interrupted (causing a rattling noise)
- Immediately switch off tool.
- Remove the jammed accessory.
- Switch on tool again.

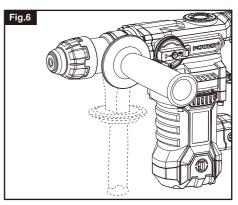


HOLDING AND GUIDING THE TOOL (Fig.6)

MARNING:

Always use auxiliary handle (8) (can be adjusted as illustrated).

- Turn the bottom part of the auxiliary handle (8) in counterclockwise direction and swivel the auxiliary handle (8) to the desired position. Then retighten the bottom part of the auxiliary handle (8) by turning in clockwise direction.
- Keep the ventilation slots uncovered.
- Do not apply too much pressure on the tool, let the tool do the work for you.



HELPFUL TIPS

- For drilling in wood, metal and plastic as well as for screw driving the ring gear chuck and the corresponding adapter should be used.
- The hammer mechanism is activated by applying a slight pressure on the tool when the drill bit is in contact with the work piece.
- Best hammer drilling results can be obtained by only a slight pressure on the tool needed to keep the automatic clutch engaged; drilling performance will not improve by applying more pressure on the tool.

MAINTENANCE

GENERAL

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, carbon dust, etc.

↑ WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.

When electric tools are used on fiberglass boats, sports cars, wallboard, spackling compounds, or plaster, it has been found that they are subject to accelerated wear and possible premature failure, as the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compounds, or plaster. If, however, you do work with any of these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

∴ WARNING:

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

POWER SUPPLY CORD REPLACEMENT

If replacement of the power supply cord is necessary, this must be done by an authorized service center in order to avoid a safety hazard.

CLEANING AND MAINTENANCE

MARNING:

Disconnect the plug before cleaning.

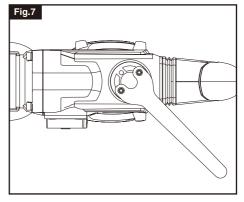
- Regularly clean the ventilation slots.
- The rotary hammer does not require any special maintenance.
- Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth.

REPLACE GREASE(Fig.7)

MARNING:

Always switch OFF the electric supply when filling the grease!

- Open the cap with spanner;
- Take appropriate amount of grease from the container and fill into the tool; we recommend you check the grease when the tool for 10h of continuous use.
- Close the cap.



Always store your power tool in a dry place.

- Keep the motor ventilation slots clean.
- If you see some sparks flashing in the ventilation slots, this is normal and will not damage your power tool.

To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by an Authorized Service Centers.

DISPOSAL AND RECYCLING



Disposal of the appliance

A crossed-out wheelie bin icon means: Batteries and rechargeable batteries, electrical or electronic devices must not be disposed of with household waste. They may contain substances that are harmful to the environment and human health.

Consumers must dispose of waste electrical devices, spent portable batteries and rechargeable batteries separately from household waste at an official collection point to ensure that these items are processed correctly. Information on returning these items is available from the seller. Sellers are required to accept these items free of charge. Batteries and rechargeable batteries, which are not permanently installed in waste electrical devices, must be removed prior to disposal and must be disposed of separately. Lithium batteries and battery packs in all systems must only be retuned to a collection point when discharged. Batteries must always be protected against short circuits by covering the poles with adhesive tape. All end users are responsible for deleting any personal data stored on waste devices prior to their disposal.



Disposal of the packaging

The packaging consists of cardboard and correspondingly marked plastics that can be recycled. Make these materials available for recycling.