

HILTI

TE 2000-AVR

English



1 Information about the documentation




1.1 About this documentation

- Read this documentation before initial operation or use. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in this documentation and on the product.
- Always keep the operating instructions with the product and make sure that the operating instructions are with the product when it is given to other persons.

1.2 Explanation of symbols used



1.2.1 Warnings

Warnings alert persons to hazards that may occur when handling or using the product. The following signal words are used in combination with a symbol:

	DANGER! Draws attention to an imminent hazard that will lead to serious personal injury or fatality.
	WARNING! Draws attention to a potential hazard that could lead to serious personal injury or fatality.
	CAUTION! Draws attention to a potentially dangerous situation that could lead to minor personal injury or material damage.





1.2.2 Symbols in the documentation

The following symbols are used in this document:

	Read the operating instructions before use
	Instructions for use and other useful information

1.2.3 Symbols in the illustrations



The following symbols are used in illustrations:

	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions.
	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text.
	Item reference numbers are used in the overview illustration and refer to the numbers used in the key in the product overview section.
	This symbol is intended to draw special attention to certain points when handling the product.

1.3 Product-dependent symbols

1.3.1 Symbols on the product

The following symbols are used on the product:

	Protection class II (double-insulated)
	Service indicator

1.4 Product information

Hilti products are designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any particular hazards that may be encountered. The product and its ancillary equipment can present hazards if used incorrectly by untrained personnel or if used not in accordance with the intended use.

The type designation and serial number are stated on the rating plate.

- ▶ Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to inquire about the product.

Product information

Breaker	TE 2000-AVR
Generation	01
Serial no.	

1.5 Declaration of conformity

We declare, on our sole responsibility, that the product described here complies with the applicable directives and standards. A copy of the declaration issued by the certification department can be found at the end of this documentation.

The technical documentation is filed and stored here:

Hilti Entwicklungsgesellschaft mbH | Tool Certification | Hiltistrasse 6 | 86916 Kaufering, Germany

2 Safety

2.1 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.

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 residual current device (RCD) protected supply.** Use of an RCD 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, 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.

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 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.
- ▶ **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.

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.

2.2 Hammer safety warnings

- ▶ **Wear ear protectors.** Exposure to noise can cause hearing loss.
- ▶ **Use auxiliary handles, if supplied with the tool.** Loss of control can cause personal injury.
- ▶ **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.

2.3 Additional safety instructions for breakers

Personal safety

- ▶ Use the product only when it is in technically faultless condition.
- ▶ Never tamper with or modify the power tool in any way.
- ▶ Use the auxiliary grips supplied with the power tool. Loss of control can cause personal injury.
- ▶ Apply appropriate safety measures at the opposite side of the workpiece in work that involves breaking through. Parts breaking away could fall out and / or fall down causing injury to other persons.
- ▶ Always hold the tool securely with both hands on the insulated grips. Keep the grips clean and dry. If the accessory tool comes into contact with live cables, metal parts of the power tool can also become live, resulting in an electric shock.
- ▶ You and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection, protective gloves and respiratory protection while the tool is in use.
- ▶ Wear protective gloves also when changing the accessory tool. Touching the accessory tool can result in cuts and burns.
- ▶ Wear eye protection. Flying fragments can injure the body and eyes.
- ▶ Before starting work, check the hazard class of the dust that will be produced when working. Use an industrial vacuum cleaner with an officially approved protection class in compliance with the locally applicable dust protection regulations. Dust from materials such as lead-based paint, certain types of wood and concrete/masonry/stone containing quartz, minerals or metal can be harmful to health.
- ▶ Make sure that the workplace is well ventilated and, where necessary, wear a respirator appropriate for the type of dust generated. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory or other diseases among operators or bystanders. Certain kinds of dust are classified as carcinogenic such as oak and beech dust, especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos may be handled only by specialists.

- ▶ Take breaks and do physical exercises to improve the blood circulation in your fingers. Exposure to vibration during long periods of work can lead to disorders of the blood vessels and nervous system in the fingers, hands and wrists.

Electrical safety

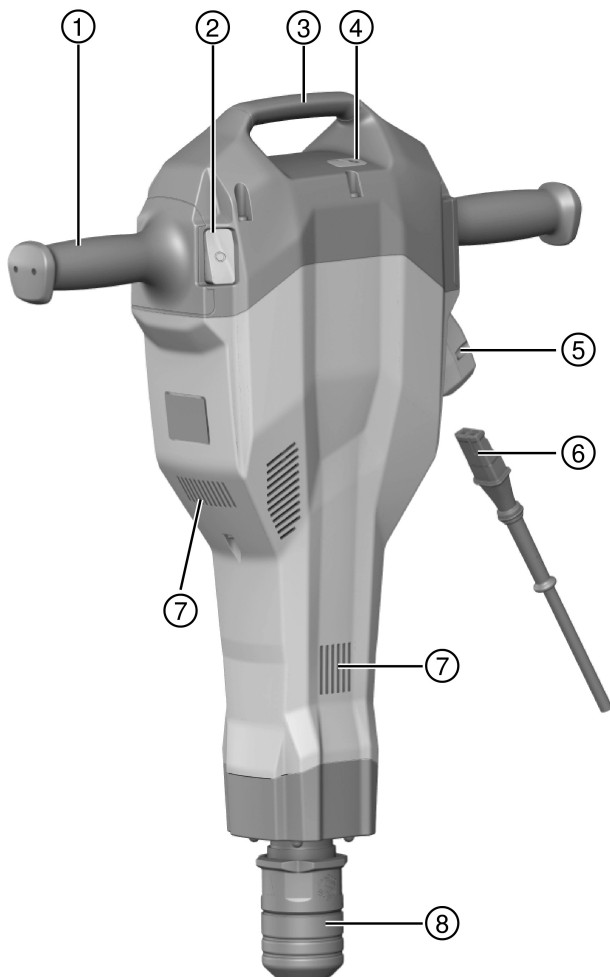
- ▶ Before beginning work, check the working area for concealed electric cables or gas and water pipes. External metal parts of the power tool can become live, presenting a risk of electric shock, if you accidentally damage an electric cable.

Careful handling and use of electric tools

- ▶ Wait until the power tool stops completely before you lay it down.

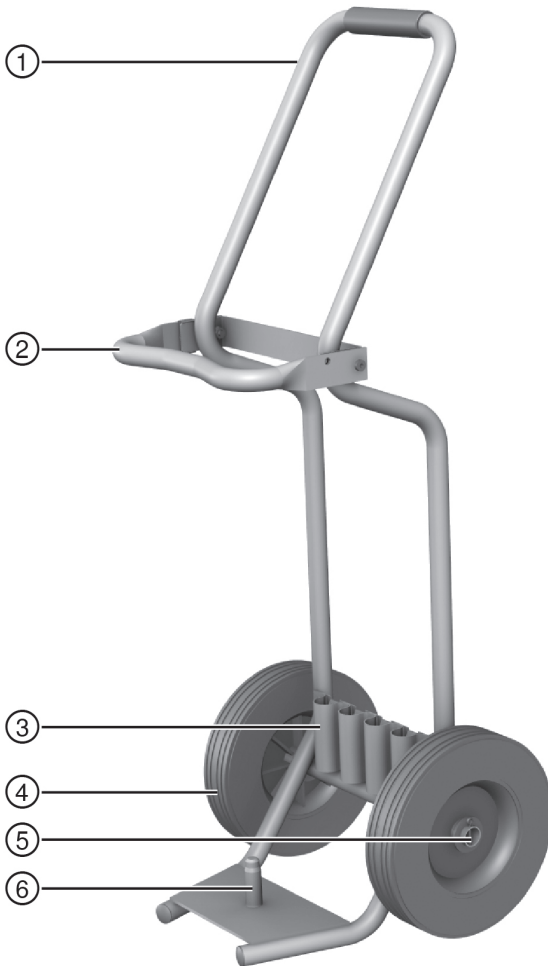
3 Description

3.1 Overview of the TE 2000-AVR



- ① Grip
- ② On/off switch
- ③ Carrying handle
- ④ Service indicator
- ⑤ Supply cord plug
- ⑥ Detachable supply cord
- ⑦ Air vents
- ⑧ Chuck

3.2 Overview of the transport trolley



① Grip

② Locking bar

- ③ Holder for accessory tools (chisels)
- ④ Wheels

- ⑤ Wheel securing parts (washer, retaining pin)
- ⑥ Power tool locating pin

3.3 Intended use

The product described is a hand-held electric breaker. It is designed for chiseling work on concrete, masonry and asphalt. It can also be used for excavating and compacting.

The tool may be operated only when connected to a power supply providing a voltage and frequency in compliance with the information given on its rating plate.

3.4 Foreseeable misuse

- The power tool may be used only in a dry environment.
- Do not use the power tool where there is a risk of fire and explosion.
- Working with materials hazardous to health (e.g. asbestos) is not permissible.

3.5 Active Vibration Reduction

The tool is equipped with an Active Vibration Reduction (AVR) system which reduces vibration noticeably.

3.6 Service indicator

The breaker is equipped with a service indicator LED.

Status	Meaning
The service indicator lights red.	<ul style="list-style-type: none"> • End of service interval – servicing is due. Return the product to Hilti Service for servicing in good time in order to ensure that it is always ready for use. • A fault has occurred in the power tool.
The service indicator flashes red.	<ul style="list-style-type: none"> • Protection against overheating • The voltage provided by the electric supply is too high.

3.7 Items supplied

Electric breaker, detachable supply cord, operating instructions, grease. The transport trolley is available as an accessory.

You can find other system products approved for your product at your local **Hilti Center** or online at: www.hilti.group

4 Technical data

4.1 Breaker



Note

For details of the rated voltage, current, frequency and/or input power, please refer to the power tool's country-specific type identification plate.

When powered by a generator or transformer, the generator or transformer's power output must be at least twice the rated input power shown on the rating plate of the power tool. The operating voltage of the transformer or generator must always be within +5% and -15% of the rated voltage of the power tool.

	TE 2000-AVR
Weight	14.5 kg
Impact speed	30 Hz
Protection class	II

4.1.1 Using extension cords



WARNING

A damaged supply cord presents a hazard! Do not touch the supply cord or extension cord if damaged while working. Disconnect the supply cord plug from the power outlet.

- ▶ Check the appliance's supply cord at regular intervals and have it replaced by a qualified specialist if found to be damaged.

- Use only extension cords of a type approved for the application and with conductors of adequate gauge (cross section). The power tool may otherwise suffer a drop in performance and the extension cord may overheat.
- Check the extension cord for damage at regular intervals.
- Replace damaged extension cords.
- When working outdoors, use only extension cords that are approved and correspondingly marked for this application.

Recommended minimum conductor cross-section and maximum power-cord length for 120V supply voltage

Cord	AWG 16	AWG 14	AWG 12	AWG 10
Conductor cross-section	1,31 mm ²	2,08 mm ²	3,31 mm ²	5,26 mm ²
Conductor cross-section	2,58 kcmil	4,11 kcmil	6,53 kcmil	10,4 kcmil
Cord length	25 m	30 m	50 m	100 m
Cord length	75 ft	100 ft	150 ft	250 ft

5 Operation

5.1 Preparations at the workplace



CAUTION

Risk of injury! Inadvertent starting of the product.

- ▶ Unplug the supply cord before making adjustments to the power tool or before changing accessories.

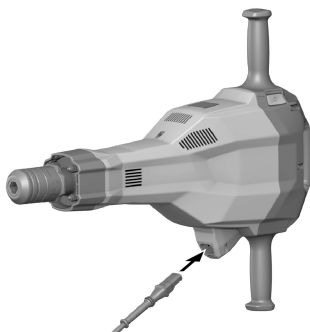
Observe the safety instructions and warnings in this documentation and on the product.

5.1.1 Connecting the supply cord to the power tool



Note

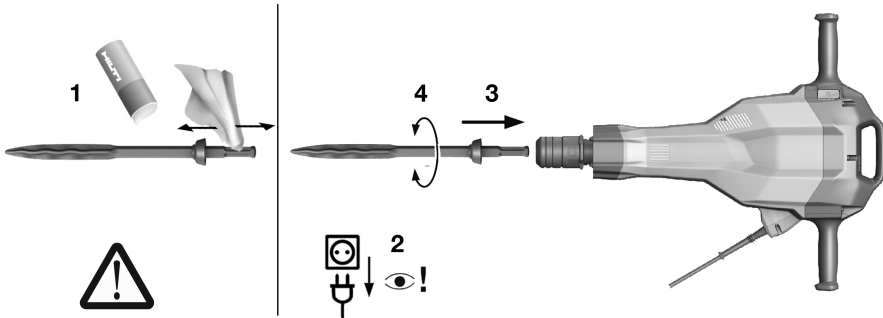
The releasable plug connector may be connected to the product only when it is clean and dry and when under no voltage (i.e. disconnected from the electric supply). The plug connector has a keyed fit.



1. Remove the supply cord from the cardboard box.
2. Plug the connector into the tool, pushing it in until it is heard to engage.

3. Plug the supply cord into the power outlet.

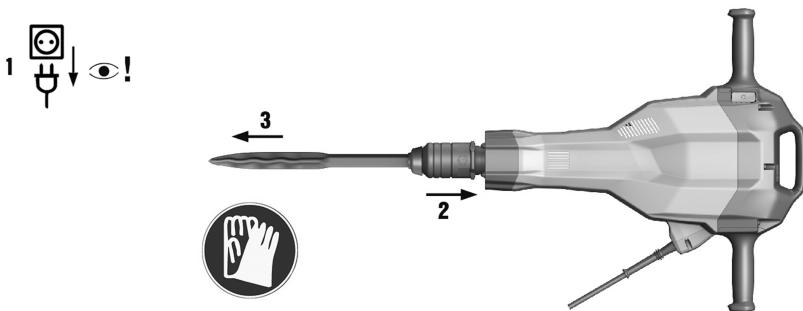
5.1.2 Fitting the accessory tool



1. Unplug the supply cord from the power outlet.
2. Lightly grease the connection end of the accessory tool.
 - ◀ Use only the recommended grease supplied by **Hilti**. Using the wrong grease can result in damage to the tool.
3. Push the accessory tool into the chuck as far as it will go, turning it and applying light pressure until it engages with an audible click.
4. Check that the chisel has engaged correctly by gripping and pulling it.

5.1.3 Removing the accessory tool

- CAUTION**
Risk of injury! The accessory tool may be hot and/or have sharp edges.
- ▶ Wear protective gloves when changing the accessory tool.
 - ▶ Never lay down a hot accessory tool on a flammable surface.



1. Unplug the supply cord from the power outlet.
2. Pull the accessory tool retaining bar back as far as it will go.
3. Remove the accessory tool.

5.2 Types of work



WARNING

Risk of electric shock! Severe injury and burns can result if any attempt is made to operate the tool without an earth/ground conductor and ground fault circuit interrupter correctly connected.

- ▶ Irrespective of whether mains power or generator power is used, always make sure that an earth/ground conductor and ground fault circuit interrupter are present in the power supply and that these are correctly connected.
- ▶ Do not use the product unless these safety measures are in place and fully operational.



WARNING

A damaged supply cord presents a hazard! Do not touch the supply cord or extension cord if damaged while working. Disconnect the supply cord plug from the power outlet.

- ▶ Check the appliance's supply cord at regular intervals and have it replaced by a qualified specialist if found to be damaged.

Full approval must be obtained from the site engineer or architect prior to beginning the work.

5.2.1 Chiseling

1. Plug the supply cord into the power outlet.
2. Position the tip of the chisel at the desired location.
3. Press the on/off switch.



Note

Working at low temperatures:

The hammering mechanism works only when the power tool has reached a minimum operating temperature. Bring the chisel into contact with the workpiece and allow the power tool to run under no load until the required temperature is reached. If necessary, repeat this procedure until the hammering mechanism begins to operate.

5.2.2 Switching off

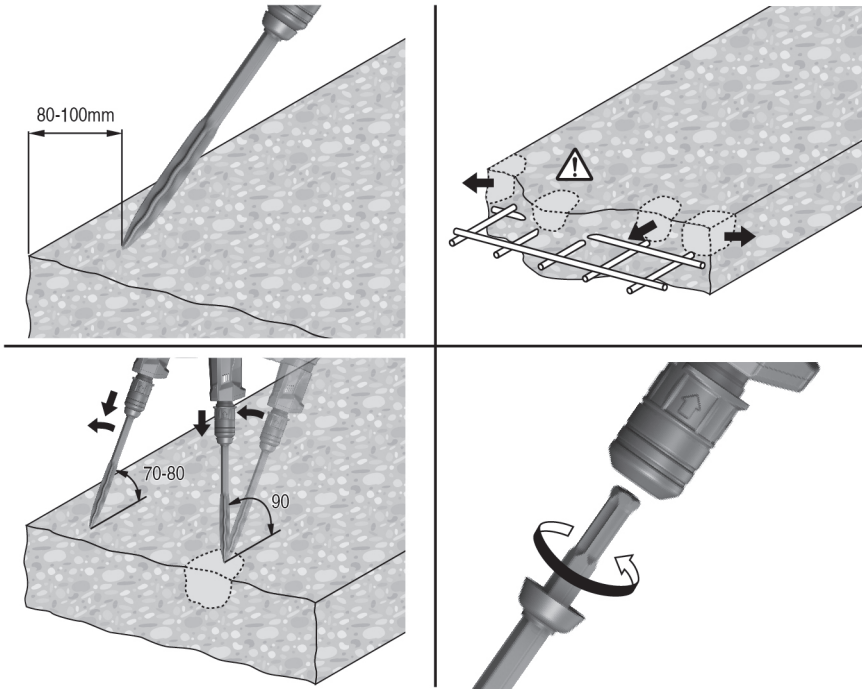
1. Press the on/off switch.
2. Unplug the supply cord from the power outlet.

5.2.3 Working with the power tool



Note

The chisel can be adjusted to 6 different positions (in 60° increments). This ensures that flat chisels and shaped chisels can always be set to the optimum working position.



- ▶ Bring the chisel into contact with the workpiece about 80 - 100 mm (3 1/8" - 4") from its edge.
- ▶ When working close to reinforcing bars, always guide the tip of the chisel toward the edge of the workpiece, not toward a reinforcing bar.
- ▶ Begin with the chisel positioned at an angle of 70° to 80° to the concrete surface, with the tip of the chisel pointing toward the edge of the workpiece. Break material away by subsequently increasing the angle to approx. 90° as the chisel penetrates.
- ▶ Rotate the chisel regularly to help ensure even wear and to promote the self-sharpening process.
- ▶ If inadequate pressure is applied, the chisel will jump around uncontrollably. Application of excessive pressure will result in a loss of chiseling performance.

6 Optional transport trolley

6.1 Transport

The transport trolley helps to ensure that the breaker can be transported safely.

- Take care to ensure that the transport trolley stands in a steady, secure position.
- Place the power tool on the locating pin provided on the transport trolley and always secure it for transport by closing the retaining bar.
- Push the chisels into the holders provided until they engage securely.
- Take care to use only safe transport routes.
- Do not park the transport trolley on an incline.

7 Care and maintenance



WARNING

Danger of electric shock! Carrying out care and maintenance while the supply cord is connected to the power outlet presents a risk of serious injuries including burns.

- ▶ Always unplug the supply cord before carrying out all care and maintenance tasks.

Care

- Carefully remove stubborn dirt from the tool.
- Clean the air vents carefully with a dry brush.
- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as they can attack the plastic parts.

Maintenance



WARNING

Danger of electric shock! Improper repairs to electrical components may lead to serious injuries including burns.

- ▶ Repairs to the electrical section of the tool or appliance may be carried out only by trained electrical specialists.

- At regular intervals, check all visible parts and the controls for signs of damage and make sure that they all function correctly.
- Do not operate the power tool if signs of damage are found or if parts malfunction. Have damage repaired immediately by **Hilti Service**.
- After cleaning and maintenance, refit all guards or protective devices and check that they function correctly.

8 Troubleshooting


If the trouble you are experiencing is not listed in this table or you are unable to remedy the problem by yourself, please contact **Hilti Service**.

8.1 Troubleshooting table

Trouble or fault	Possible cause	Action to be taken
The power tool doesn't start.	Electronics initialization in progress (takes up to 4 seconds after plugging in).	▶ Switch the power tool off and on again.
	Interruption in the electric supply.	▶ Plug in another electric appliance and check whether it works.
	The supply cord or plug is defective.	▶ Have the parts checked by a trained electrical specialist and replaced if necessary.
	Generator with sleep mode	▶ Apply a load to the generator by connecting a second power consumer (e.g. worklight). Then switch the power tool on and off again.
No hammering action.	The power tool is too cold.	▶ Allow the power tool to warm up to the minimum operating temperature.
	A fault has occurred in the power tool.	▶ Have the power tool repaired by Hilti Service .
The power tool doesn't start or cuts out while in operation and the indicator flashes red.	Temporary fault (e.g. overheating or overvoltage).	▶ Switch off, allow the power tool to cool down or connect it to a different electric supply.

Trouble or fault	Possible cause	Action to be taken
The power tool runs but the indicator lights red continuously.	Advance warning of need for servicing.	▶ Have the power tool serviced or repaired by Hilti Service .
The power tool doesn't start or cuts out while in operation.	The extension cord is too long and/or its gauge is inadequate.	▶ Use an extension cord of an approved length and/or of adequate gauge.
	The detachable supply cord is not fitted correctly.	▶ Fit the detachable supply cord to the power tool correctly.

9 Disposal

 Most of the materials from which **Hilti** tools and appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti Service** or your Hilti representative for further information.



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- ▶ Disposal of electric tools or appliances together with household waste is not permissible.
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10 Manufacturer's warranty

- ▶ Please contact your local **Hilti** representative if you have questions about the warranty conditions.

This Product is Certified
Ce produit est homologué
Producto homologado por
Este producto está registrado





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