

# HILTI

**TE 70-AVR**  
**TE 70-ATC/AVR**  
**TE 80-ATC/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





#### 1.2.1 Warnings

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

	<b>DANGER!</b> Draws attention to imminent danger leading to serious injury or fatality.
	<b>WARNING!</b> Draws attention to a potential threat of danger that can lead to serious injury or fatality.
	<b>CAUTION!</b> Draws attention to a potentially dangerous situation that can lead to minor injury or damage to the equipment or other property






#### 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
	Dealing with recyclable materials
	Do not dispose of electric equipment as household waste

#### 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 <b>overview illustrations</b> and refer to the numbers used in the <b>product overview section</b>
	This symbol is intended to draw special attention to certain points when handling the product.
	Wireless data transfer

### 1.3 Product-dependent symbols

#### 1.3.1 Symbols on the product

The following symbols are used on the product:

	Drilling with hammering action (hammer drilling)
	Chiseling
	Chisel positioning

	Protection class II (double-insulated)
$n_0$	Rated speed under no load
/min	Revolutions per minute
RPM	Revolutions per minute
$\varnothing$	Diameter
	Alternating current

#### 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

Combiammer	TE 70-AVR   TE 70-ATC/AVR   TE 80-ATC/AVR
Generation	03
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 of conformity 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, instructions, illustrations and specifications provided with this power tool.** Failure to follow the instructions below 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 your work area clean and well lit.** Cluttered or dark work areas invite accidents.
- ▶ **Do not operate the power tool 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 power outlets reduce the 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 the power tool may result in serious personal injury.
- ▶ **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.
- ▶ **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 and clothing 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 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 remove the battery pack, if detachable, 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 and accessories. 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.
- ▶ **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.

#### 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 Safety instructions for power drills

### Safety instructions for work of all kinds

- ▶ **Wear ear protection when hammer drilling.** Exposure to noise can cause hearing loss.
- ▶ **Use the auxiliary handle.** Loss of control can cause personal injury.
- ▶ **Always support the power tool firmly in preparation for use.** This power tool produces high torque. If the power tool is not securely supported at all times during operation loss of control can result and lead to injuries.
- ▶ **Hold the power tool by the insulated gripping surfaces only, when carrying out work in which the accessory tool or the screws can come into contact with concealed wiring or the tool's own supply**

**cord.** If the accessory tool comes into contact with a live wire, metal parts of the power tool can also become live, resulting in an electric shock.

#### **Safety instructions for using long drill bits**

- ▶ **Do not under any circumstances attempt to work with the power tool operating at a speed higher than the maximum permissible speed for the drill bit.** A drill bit spinning at a speed higher than its maximum permissible speed when not in contact with the workpiece can develop a slight curvature and this can lead to injuries.
- ▶ **Always start drilling at a low speed and with the drill bit in contact with the workpiece.** A drill bit spinning at a speed higher than its maximum permissible speed when not in contact with the workpiece can develop a slight curvature and this can lead to injuries.
- ▶ **Do not apply too much pressure to the drill bit and apply pressure only along the drill bit's longitudinal axis.** Drill bits can bend and subsequently break or cause a loss of control and resultant injury.

#### **Safety instructions for using mixing paddles or stirrers**

- ▶ **Switch the power tool on or off only when the mixing paddle is immersed in the material for mixing.** Failure to do so can cause a loss of control with resultant risk of injury.

### **2.3 Additional safety instructions for rotary hammer**

#### **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 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 power tool with both hands on the grips provided. Keep the grips clean and dry.
- ▶ Hold the power tool by the insulated gripping surfaces when performing work in which the accessory tool might come into contact with concealed wiring. If the accessory tool comes into contact with a live wire, metal parts of the power tool can also become live, resulting in an electric shock.
- ▶ Avoid touching rotating parts – risk of injury!
- ▶ Wear suitable protective glasses, a hard hat, ear defenders, protective gloves and light respiratory protection while using the power tool.
- ▶ Wear protective gloves also when changing the accessory tool. Touching the accessory tool presents a risk of injury (cuts or burns).
- ▶ Wear eye protection. Flying fragments present a risk of injury to 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 can cause allergic reactions and/or respiratory or other diseases to the operator or bystanders. Certain kinds of dust such as oakwood and beechwood dust are classified as carcinogenic, especially in conjunction with additives for wood conditioning (chromate, wood preservative). Only specialists are permitted to handle material containing asbestos.
- ▶ 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**

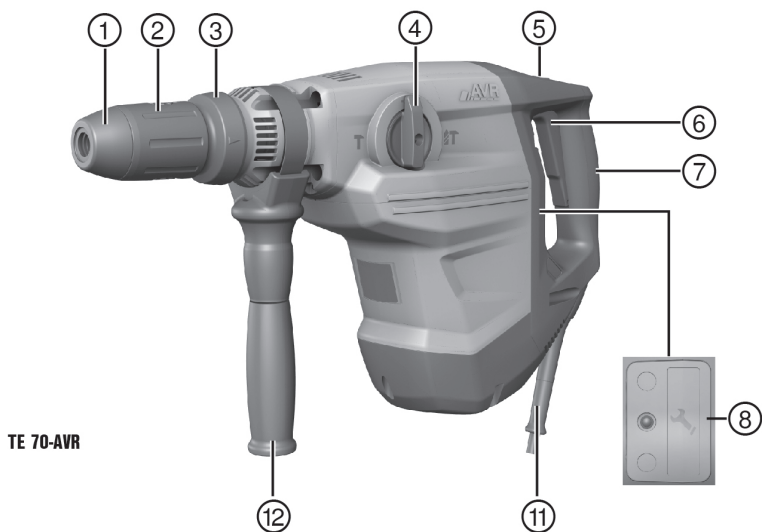
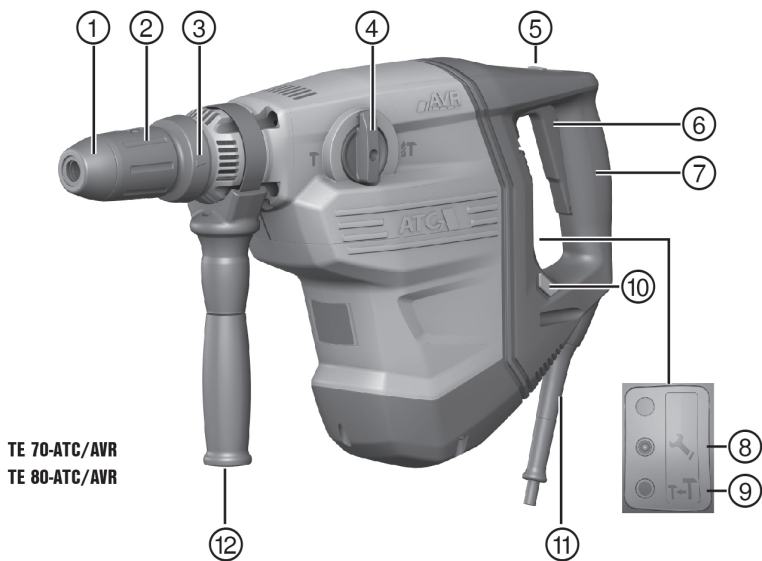
- ▶ Before beginning work, check the working area for concealed electric cables, gas pipes and water pipes. External metal parts of the power tool can become live, presenting a risk of electric shock, if you accidentally damage an electric cable.

#### **Power tool use and care**

- ▶ Immediately switch off the power tool if the accessory tool jams. The power tool might twist off-line.
- ▶ Wait until the power tool stops completely before you lay it down.

### 3 Description

#### 3.1 Product overview



- |                            |   |
|----------------------------|---|
| ① Dust shield              | ⑦ Grip  |
| ② Chuck                    | ⑧ Service indicator                           |
| ③ Accessory tool release   | ⑨ Indicator for half power (ATC version only) |
| ④ Function selector switch | ⑩ Button for half power (ATC version only)    |
| ⑤ Control switch lock      | ⑪ Supply cord                                 |
| ⑥ Control switch           | ⑫ Side handle                                 |

### 3.2 Intended use

The product described is an electrically powered combihammer with pneumatic hammering mechanism. It is designed for drilling in concrete, masonry, wood and metal. The product can also be used for light- to medium-duty chiseling on masonry and surface finishing work on concrete.

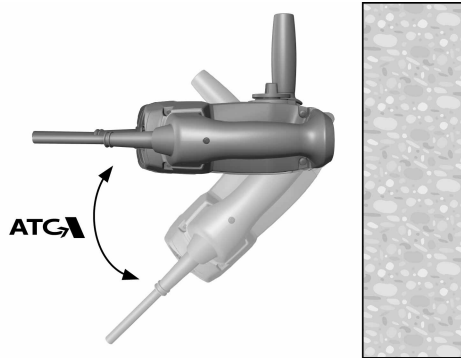
Under certain conditions, the product is also suitable for stirring / mixing.

- ▶ The tool may be operated only when connected to a power source providing a voltage and frequency in compliance with the information given on the type identification plate.

### 3.3 AVR option

The product may be optionally equipped with an Active Vibration Reduction (AVR) system, which reduces vibration noticeably.

### 3.4 Active Torque Control



The product has a mechanical slip clutch and an Active Torque Control (ATC) system.

This system offers additional convenience by rapid shutdown in response to sudden rotation of the rotary hammer drill around the drill bit axis. This can happen, for example if the drill bit sticks due to hitting a rebar or when the drill bit is tilted unintentionally.

Always choose a working position that allows the power tool when running in the forward direction to turn freely counterclockwise (as seen from the user's point of view). When running in reverse, the tool reacts by clockwise rotation. If rotational movement is not possible, the ATC system cannot react.

### 3.5 Service indicator

The product is equipped with a service indicator LED.

#### 3.5.1 Service indicator status

Status	Meaning
The service indicator lights red.	<ul style="list-style-type: none"> <li>• End of service interval – servicing is due.</li> </ul>
The service indicator blinks red.	<ul style="list-style-type: none"> <li>• Have the combihammer repaired by <b>Hilti Service</b>.</li> </ul>

### 3.6 Items supplied

Combihammer, side handle, operating instructions.

Other system products approved for use with this product can be found at your local **Hilti Store** or at: **www.hilti.group** | USA: **www.hilti.com**



## 4 Technical data



### Note

For rated voltage, rated current, frequency and/or input power, refer to the country-specific type identification plate.

If the tool is 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 tool. The operating voltage of the transformer or generator must always be within +5 % and -15 % of the rated voltage of the tool.

	TE 70-AVR	TE 70-ATC/AVR	TE 80-ATC/AVR
<b>Weight in accordance with EPTA procedure 01</b>	8.3 kg	9.5 kg	9.7 kg
<b>Single impact energy in accordance with EPTA procedure 05</b>	11.5 J	11.5 J	11.5 J
<b>Ø hammer drill bits</b>	12 mm ...45 mm	12 mm ...45 mm	12 mm ...45 mm
<b>Ø drill bits for wood</b>	10 mm ...32 mm	10 mm ...32 mm	10 mm ...32 mm
<b>Ø drill bits for metal</b>	0 mm ...20 mm	0 mm ...20 mm	0 mm ...20 mm

### 4.1 Noise information and vibration values in accordance with EN 60745

The sound pressure and vibration values given in these instructions were measured in accordance with a standardized test and can be used to compare one power tool with another. They can also be used for a preliminary assessment of exposure. The data given represents the main applications of the power tool. However, if the power tool is used for different applications, with different accessory tools, or is poorly maintained, the data can vary. This can significantly increase exposure over the total working period. An accurate estimation of exposure should also take into account the times when the tool is switched off, or when it is running but not actually being used for a job. This can significantly reduce exposure over the total working period. Identify additional safety measures to protect the operator from the effects of noise and/or vibration, for example: Maintaining the power tool and accessory tools, keeping the hands warm, organization of work patterns.

#### Noise emission values

	TE 70-AVR	TE 70-ATC/AVR	TE 80-ATC/AVR
<b>Sound (power) level (<math>L_{WA}</math>)</b>	113 dB(A)	113 dB(A)	113 dB(A)
<b>Uncertainty for the sound power level (<math>K_{WA}</math>)</b>	3 dB(A)	3 dB(A)	3 dB(A)
<b>Emission sound pressure level (<math>L_{pA}</math>)</b>	102 dB(A)	102 dB(A)	102 dB(A)
<b>Uncertainty for the sound pressure level (<math>K_{pA}</math>)</b>	3 dB(A)	3 dB(A)	3 dB(A)

#### Total vibration

	TE 70-AVR	TE 70-ATC/AVR	TE 80-ATC/AVR
<b>Hammer drilling in concrete (<math>a_{h, HD}</math>)</b>	10 m/s <sup>2</sup>	10 m/s <sup>2</sup>	7.5 m/s <sup>2</sup>
<b>Chiseling (<math>a_{h, Cheq}</math>)</b>	9 m/s <sup>2</sup>	9 m/s <sup>2</sup>	7 m/s <sup>2</sup>
<b>Uncertainty (K)</b>	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>

## 5 Operation

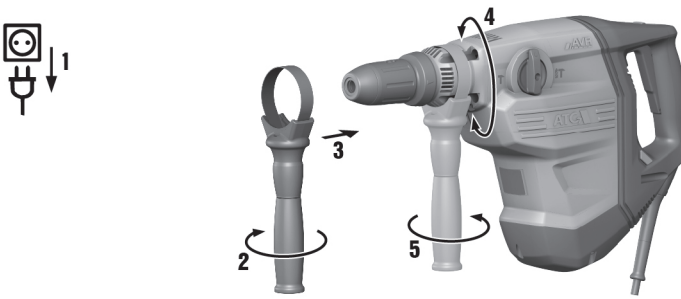
### 5.1 Fitting the side handle



#### CAUTION

**Risk of injury!** Loss of control over the combihammer.

- ▶ Check that the side handle is fitted correctly and tightened securely. Check that the clamping band is engaged in the groove provided on the tool.



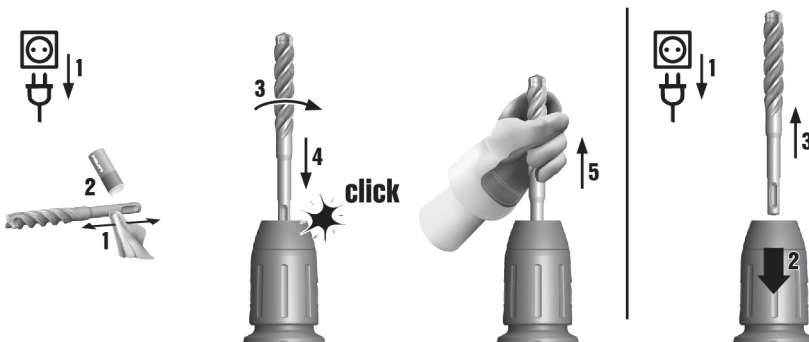
- ▶ Fit the side handle.

## 5.2 Fitting / removing the accessory tool



### Note

The use of unsuitable grease may cause damage to the tool. **Use only genuine Hilti grease.** Always check the accessory tool for damage and uneven wear before each use; replace if necessary.



- ▶ Fit or remove the accessory tool, as applicable.

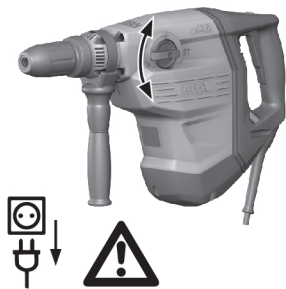
## 5.3 Drilling without hammer action




### Note

Drilling without hammer action is possible when accessory tools with a special connection end are used. Tools of this kind are available from the **Hilti** tools range.

When the keyless quick-release chuck is fitted, smooth-shank drill bits for wood or steel, for example, can be used to drill without hammer action.



- ▶ Set the function selector switch to the "Hammer drilling" position .


## 5.4 Mixing



### Note

Use the mixing paddle only with the quick-release chuck.



- ▶ Set the function selector switch to the "Hammer drilling" position  and insert the mixing paddle into the quick-release chuck.

## 5.5 Setting the power level

TE 70-ATC/AVR

TE 80-ATC/AVR



### Note

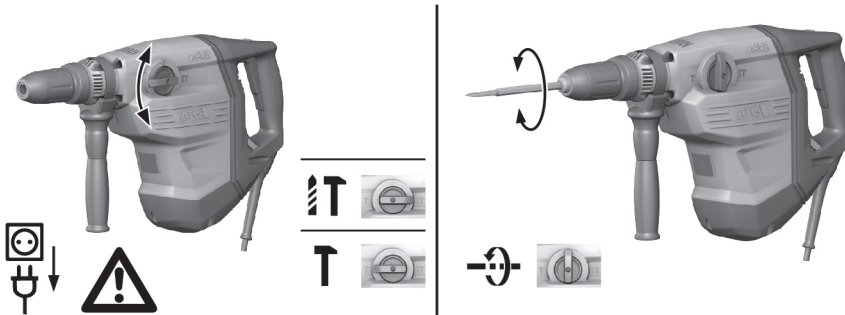
Power can be set only when the tool is switched on and ready for use.


To set the tool to half power, press the "half power" button. The power indicator lights up to indicate reduced power. Press the "half power" button again to switch to full power. The power indicator goes out.

Switching the combihammer off and then on again resets the tool to full power.

- ▶ Set the power level.

## 5.6 Drilling with hammer action (hammer drilling)



- ▶ Set the function selector switch to the “Hammer drilling” position .

## 5.7 Chisel positioning



### CAUTION

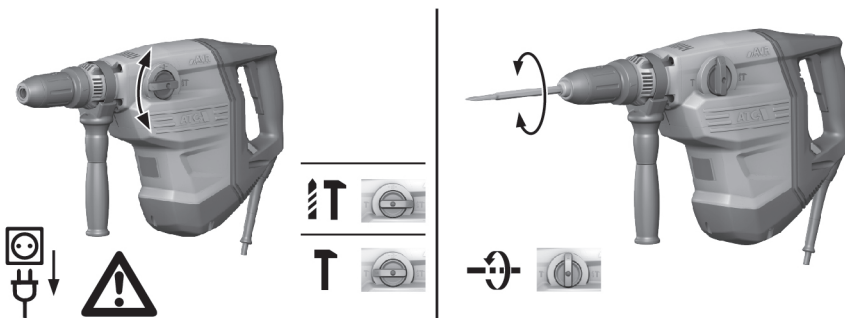
**Risk of injury!** Loss of control over the chisel direction.


- ▶ Do not operate the tool when the selector switch is set to “Chisel positioning”. Turn the function selector switch until it engages in the “Chiseling” position.



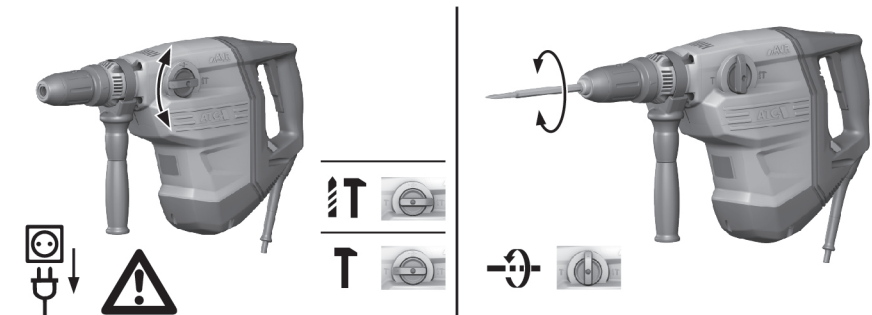
### Note

The chisel can be set to 24 different positions (in 15° increments). This ensures that flat chisels and shaped chisels can always be set to the optimum working position.



- ▶ Set the function selector switch to the “Chisel positioning” position .

## 5.8 Chiseling



- ▶ Set the function selector switch to the “Chiseling” position **T**.

## 5.9 Control switch lock



### Note

When chiseling, the control switch can be locked in the “on” position.

- ▶ Press the control switch lock.

## 6 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.

## 7 Transport and storage

- Do not transport electric tools with accessory tools fitted.
- Always unplug the supply cord before storing an electric tool or appliance.

- Store tools and appliances in a dry place where they cannot be accessed by children or unauthorized persons.
- Check electric tools or appliances for damage after long periods of transport or storage.

## 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

Trouble or fault	Possible cause	Action to be taken
Combihammer does not start.	Interruption in the electric supply.	▶ Plug in another electric tool or appliance and check whether it works.
	The generator is in sleep mode.	▶ Apply a load to the generator by connecting a second power consumer (e.g. worklight). Switch the tool off and then on again.
	The electronic restart interlock is activated after an interruption in the electric supply.	▶ Switch the power tool off and then on again.
	The carbon brushes are worn.	▶ Have checked, and if necessary replaced, by a trained electrical specialist.
No hammering action.	The power tool is too cold.	▶ Bring the tip of the accessory tool into contact with the working surface, switch the power tool on and allow it to run. If necessary, repeat the procedure until the hammering mechanism begins to operate.
Combihammer does not achieve full power.	The extension cord is too long or the conductor cross-section is inadequate.	▶ Use an extension cord of an approved length and / or of adequate conductor cross-section.
	The control switch is not fully pressed.	▶ Press the control switch as far as it will go.
	The voltage provided by the electric supply is too low.	▶ Connect the power tool to a different power source.
	TE 70-ATC/AVR TE 80-ATC/AVR	▶ Press the "half-power" button.
	The half-power button is engaged.	
Drill bit does not rotate.	The function selector switch is not engaged or is in the "Chiseling" position <b>T</b> or the "Chisel positioning" position $\rightarrow$ .	▶ With the motor at a standstill, set the function selector switch to the "Hammer drilling" <b>HT</b> position.
Drill bit is not released.	The chuck is not pulled back fully.	▶ Pull the chuck back as far as it will go and remove the accessory tool.
	The side handle is not fitted correctly.	▶ Disengage the side handle and refit it correctly so that the clamping band and side handle engage in the recess.
The service indicator blinks red.	A fault has occurred in the tool.	▶ Have the product repaired by <b>Hilti</b> Service.

Trouble or fault	Possible cause	Action to be taken
The service indicator lights red.	The carbon brushes are worn.	► Have checked, and if necessary replaced, by a trained electrical specialist.

## 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.



- Disposal of electric tools or appliances together with household waste is not permissible.

## 10 RoHS (Restriction of Hazardous Substances)

Click on the links to go to the table of hazardous substances: [qr.hilti.com/r1021413](http://qr.hilti.com/r1021413) (TE70-AVR), [qr.hilti.com/r1021424](http://qr.hilti.com/r1021424) (TE70-ATC/AVR) and [qr.hilti.com/r1021505](http://qr.hilti.com/r1021505) (TE80-ATC/AVR).

There is a link to the RoHS table, in the form of a QR code, at the end of this document.

## 11 Manufacturer's warranty

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







**Hilti Aktiengesellschaft**  
Feldkircherstraße 100  
9494 Schaan | Liechtenstein

**TE 70-AVR (03) | TE 70-ATC/AVR (03) |  
TE 80-ATC/AVR (03)**

[2013]

2006/42/EC  
2014/30/EU  
2011/65/EU  
2006/66/EU

EN ISO 12100  
EN 60745-1  
EN 60745-2-6

**Paolo Luccini**  
Head of BA Quality and Process Management  
Business Area Electric Tools & Accessories

Schaan, 2015-05-01

**Tassilo Deinzer**  
Executive Vice President  
Business Unit Power Tools & Accessories

**TE 70-AVR**



TE 70-ATC/AVR



TE 80-ATC/AVR







Hilti Corporation

LI-9494 Schaan

Tel.: +423/234 21 11

Fax: +423/234 29 65

[www.hilti.group](http://www.hilti.group)

Hilti = registered trademark of Hilti Corp., Schaan



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