

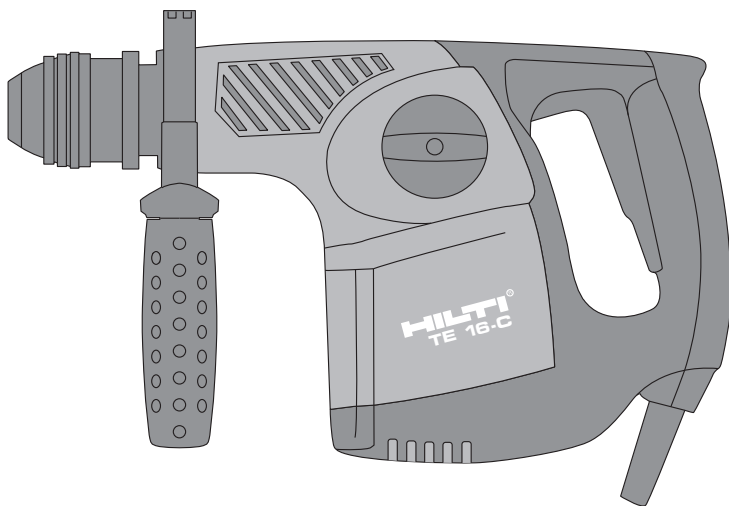
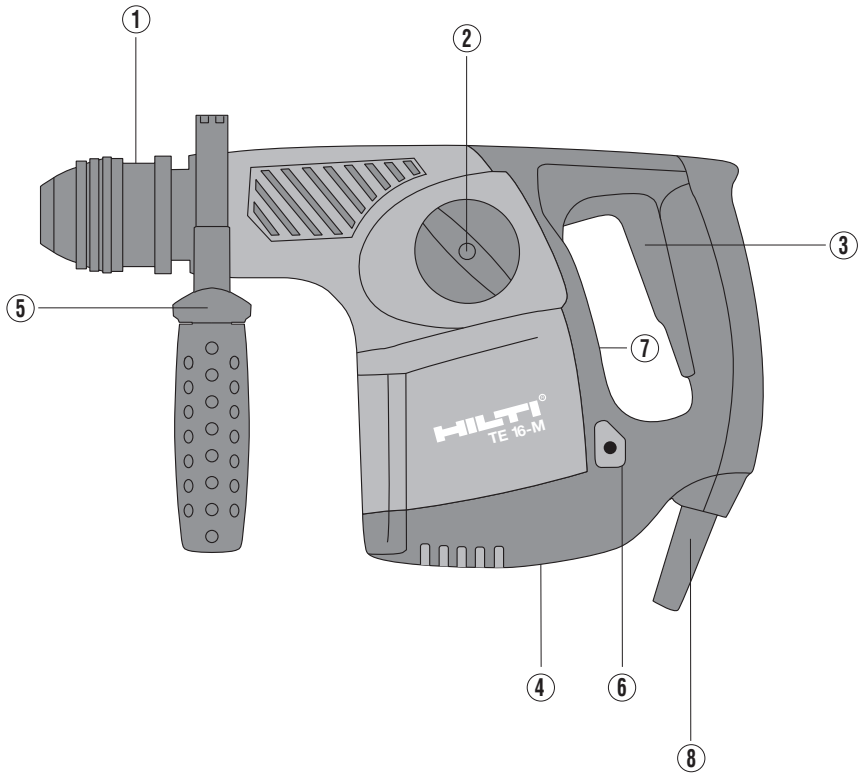
HILTI

TE 16 / TE 16-C / TE 16-M

Operating instructions

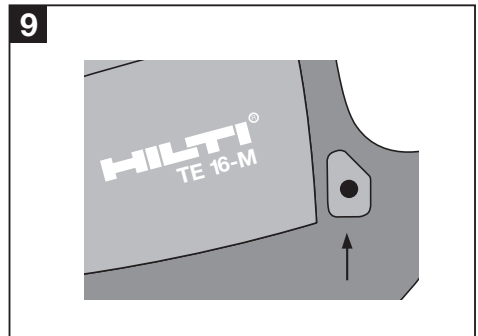
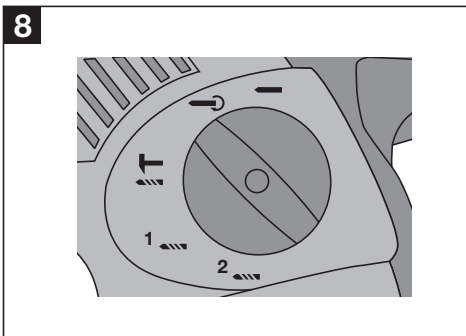
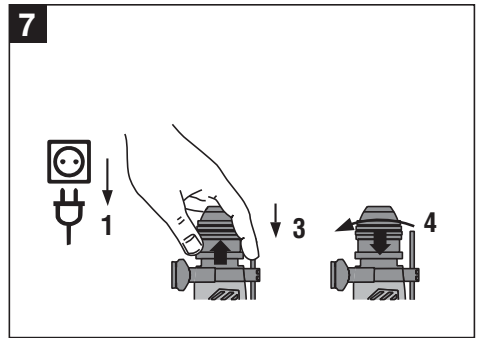
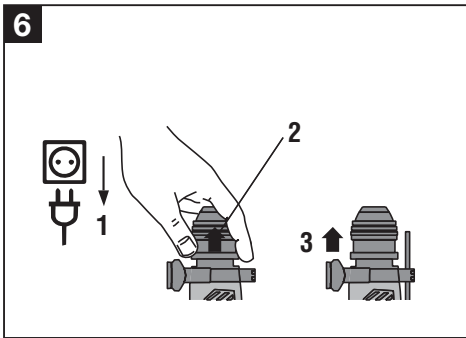
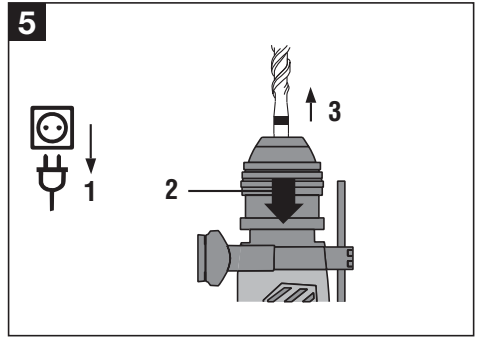
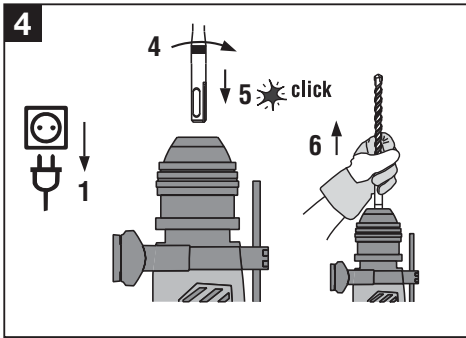
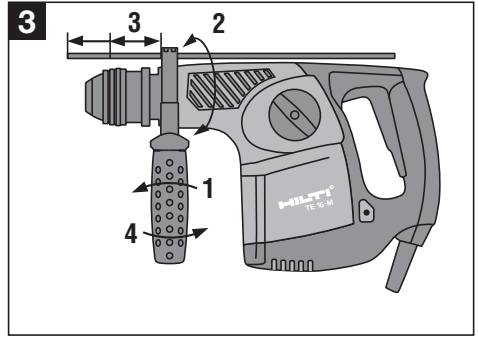
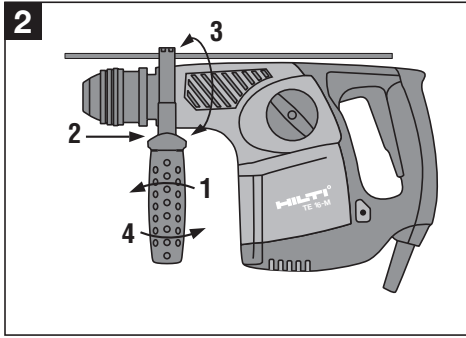
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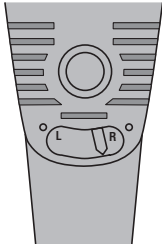


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ORIGINAL OPERATING INSTRUCTIONS

TE 16/-C/-M rotary hammer

It is essential that the operating instructions are read before the tool is operated for the first time.

Always keep these operating instructions together with the tool.

Ensure that the operating instructions are with the tool when it is given to other persons.

Operating controls and parts 1

- ① Chuck
- ② Function selector switch
- ③ Control switch
- ④ Forwards/reverse switch
- ⑤ Side handle with depth gauge
- ⑥ Theft protection system
(accessory for TE 16-M available as option)
- ⑦ Lock symbol
(accessory for TE 16-M available as option)
- ⑧ Supply cord

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1. General information

1.1 Safety notices and their meaning

-CAUTION-

Draws attention to a potentially dangerous situation that could lead to minor personal injury or damage to the equipment or other property.

-NOTE-

Draws attention to instructions and other useful information that help the user to employ the product efficiently.

1.2 Pictograms

Warning signs



General warning



Warning: electricity



Warning: hot surface

Obligation signs



Wear a hard hat



Wear eye protection



Wear breathing protection



Wear ear protection



Wear protective gloves

Symbols



Read the operating instructions before use.



Equipped with theft protection system



Lock symbol



Return waste material for recycling

1 These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

In these operating instructions, the TE 16, TE 16-C or TE 16-M is referred to as "the tool".

Location of identification data on the tool

The type designation can be found on the rating plate and the serial number on the side of the motor housing. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: _____

Serial No.: _____

2. General safety rules

1. WARNING!

Read and understand all instructions.

Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

2. Work Area

Keep your work area clean and well lit. Cluttered benches and 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 bystanders, children and visitors away while operating a power tool. Distractions can cause you to lose control.

3. Electrical Safety

Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

Applicable only to Class I (grounded) tools.

Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double Insulation  eliminates the need for the three wire grounded power cord and grounded power supply system.

Applicable only to Class II tools.

Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.

Don't 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 to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

When operating a power tool outside, use an outdoor extension cord marked «W-A» or «W». These cords are rated for outdoor use and reduce the risk of electric shock.

4. Personal Safety

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.

Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

Remove adjusting keys or wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.



Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

5. Tool Use and Care

Use clamps or other practical way 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.

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.

Do not use tool if the switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.

Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tools operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

6. Service

Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.

When servicing a 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 electric shock or injury.

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3. Specific safety rules and symbols

Hold tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

Wear ear protectors when using the tool for extended periods. Prolonged exposure to high intensity noise can cause hearing loss.

WARNING: Some dust created by grinding, sanding, cutting and drilling contains chemicals known to cause cancer, birth defects, infertility or other reproductive harm; or serious and permanent respiratory or other injury. Some examples of these chemicals are: lead from leadbased paints, crystalline silica from bricks, concrete and other masonry products and natural stone, 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 exposure to these chemicals, the operator and bystanders should work in a well-ventilated area, work with approved safety equipment, such as respiratory protection appropriate for the type of dust generated, and designed to filter out microscopic particles and direct dust away from the face and body. Avoid prolonged contact with dust. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or to remain on your skin may promote absorption of harmful chemicals.

Children must be instructed not to play with the tool.

The tool is not intended for use by children, by debilitated persons or those who have received no instruction or training.



- Ensure that the workplace is well ventilated.
- To avoid tripping and falling when working, always lead the supply cord, extension cord and dust extraction hose away to the rear.

- Concealed electric cables or gas and water pipes present a serious hazard if damaged while you are working. Accordingly, check the area in which you are working beforehand (e.g. using a metal detector). External metal parts of the tool may become live, for example, when an electric cable is drilled into inadvertently.



- Avoid contact with rotating parts.
- Keep the grips clean, dry and free from oil and grease.
- Always hold the tool securely with both hands on the grips provided.
- When not in use, the tool must be stored in a dry place.
- Avoid unintentional starting. Never keep a finger on the on/off switch when carrying the tool when it is connected to the electric supply. Check that the on/off switch is in the "off" position before plugging the supply cord into the electric socket.
- Switch the tool on only once it has been brought into the working position close to the workpiece.
- Switch the tool off before transporting it.
- Observe the instructions concerning lubrication and changing insert tools.



- Observe the instructions concerning care and maintenance.
- Ensure that the insert tools used are equipped with the appropriate connection end system and that they are properly fitted and secured in the chuck.



- Protect yourself against electric shock. Avoid body contact with earthed/grounded objects, e.g. pipes, radiators, cookers and fridges.
- Check the condition of the supply cord and its plug connections and have it replaced by a qualified elec-

trician if damage is found. Check the condition of the extension cord and replace it if damage is found.

- Check the condition of the tool and its accessories. Do not operate the tool or its accessories if damage is found, if the tool is incomplete or if its controls cannot be operated faultlessly.
- Do not touch the supply cord in the event of it suffering damage while working. Disconnect the supply cord plug from the socket.
- Electrostatic discharge is possible at any time.
- In the event of a power failure, switch the tool off and unplug the supply cord.
- Avoid using extension cords with multiple sockets and the simultaneous use of several tools connected to one extension cord.
- Never operate the tool when it is dirty or wet. Dust (especially dust from conductive materials) or dampness adhering to the surface of the tool may, under unfavorable conditions, present a risk of electric shock. Dirty or dusty electric tools should thus be checked at a Hilti service center at regular intervals, especially if used frequently for working on conductive materials.



Warning: hot surface



Wear protective gloves

- The insert tool may become hot during use. Wear protective gloves when changing insert tools.



Wear breathing protection

- Breathing protection must be worn when the tool is used without a dust removal system for work that creates dust.
- The tool is intended for professional use.
- The tool may be operated, serviced and repaired only by authorized, trained personnel. This personnel must be informed of any special hazards that may be encountered.
- Exercise your fingers during pauses between work to improve the blood circulation in your fingers.

The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection and protective gloves when the tool is in use. Breathing protection must be worn if no dust removal system is used.



Wear eye protection



Wear a hard hat



Wear ear protection



Wear protective gloves



Wear breathing protection

Symbols used on the tool

- V volts
- W watts
- ~ alternating current
- Hz hertz
- A amperes
- n_0 /min no load speed revolutions per minute
- ∅ diameter
- protective grounding
- double insulated

4. Functional description

The tool is an electrically powered rotary hammer with pneumatic hammering mechanism. The tool is intended for professional use.

See figure 1 and the explanations of operating controls and parts on page 1.

4.1 Use of the tool as intended

The tool is designed for drilling in concrete and masonry. The tool may also be used for light chiseling work on masonry and for finishing concrete surfaces.

The working environment may be on a construction site or in a workshop and the tool may be used for renovation, conversion or new building work.

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.

Changes or modifications to the tool are not permissible. To avoid the risk of injury, use only original Hilti accessories and additional equipment. Observe the information printed in the operating instructions concerning operation, care and maintenance. The tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

4.2 Chucks

- TE-C (SDS plus) chuck
- TE-T (SDS top) chuck

4.3 Theft protection system (option with TE16-M)

The power tool may be equipped with the optional theft protection system. If the power tool is equipped with this feature, it can be activated and made ready for operation only by way of the corresponding activation key.

4.4 Switches

4.4.1 Switches on the TE 16

- Speed control switch for smooth starting.
Function selector switch for:
- Drilling without hammering
 - Hammer drilling

4.4.2 Switches on the TE 16-C

- Speed control switch for smooth starting.
Function selector switch for:
- Drilling without hammering
 - Hammer drilling
 - Chisel adjustment (12 positions)
 - Chiseling

4.4.3 Switches on the TE 16-M

- Speed control switch for smooth starting.
Function selector switch for:
- Drilling without hammering 2
 - Drilling without hammering 1

- Hammer drilling
- Chisel adjustment (12 positions)
- Chiseling

4.5 Grips

- Adjustable side handle with depth gauge
- Vibration-absorbing grip

4.6 Protective devices

- Mechanical slip clutch


4.7 Lubrication

- Oil lubrication

4.8 Items supplied as standard

- The electric tool
- TE-C or TE-T chuck
- Side handle with depth gauge
- Operating instructions
- Toolbox
- Cleaning cloth
- Grease

5. Technical data

Tool	TE 16	TE 16-C	TE 16-M
Rated power input	800 W	800 W	850 W
Rated voltage/rated current input	120 V / 6.8 A 127 V / 6.8 A	120 V / 6.8 A 127 V / 6.8 A	120 V / 9.2 A 127 V / 9.2 A
Mains frequency	60 Hz	60 Hz	60 Hz
Weight of tool	8.4 lbs (3.8 kg)	8.5 lbs (3.85 kg)	8.9 lbs (4.05 kg)
Dimensions (L x W x H)	14x3.5x8.3 in (360x90x210 mm)	14x3.5x8.3 in (360x90x210 mm)	14.6x3.5x8.3 in (370x90x210 mm)
Drilling speed without hammering, position 2			1100 r.p.m.
Drilling speed without hammering, position 1	750 r.p.m.	750 r.p.m.	750 r.p.m.
Hammer drilling speed	750 r.p.m.	750 r.p.m.	750 r.p.m.
Single impact energy	3.2 J	3.2 J	3.2 J
Chuck	TE-C (SDS plus)/TE-T (SDS top)		
Drilling dia. range in concrete/masonry (hammer drilling)	$\frac{1}{4}$ – $1\frac{1}{8}$ " (5–28 mm) dia.		
Percussion core bits	$\frac{3}{4}$ – $3\frac{1}{2}$ " (66–90 mm) dia.		
Drilling dia. range with drill bits for wood	$\frac{1}{4}$ – $\frac{3}{4}$ " (5–20 mm) dia.		
Drilling dia. range with drill bits for metal	up to $\frac{1}{2}$ " (13 mm) dia.		
Drilling dia. range in medium-hard concrete	$\frac{5}{8}$ " (16 mm) dia. / 11.1 sq in / min (72 cm ³ /min)		
Protection class	either II,  (double insulated), see label or I (grounded)		
Mechanical slip clutch			
Vibration absorbing grip and side handle			

Right of technical changes reserved!

6. Assembly



6.1 Fitting the side handle 2

1. Unplug the tool from the mains socket.
2. Release the side handle clamping band by turning the handle in a counter-clockwise direction.
3. Fit the side handle clamping band over the chuck and onto the cylindrical section at the front end of the tool.
4. Pivot the side handle into the desired position.
5. Tighten the side handle securely to prevent inadvertent movement.

6.2 Use of extension cords

Use only extension cords of a type approved for the application and with conductors of adequate cross section. Failure to observe this point may cause the tool to lose power and the extension cord may overheat. Check the extension cord for damage at regular intervals. Replace damaged extension cords.

Recommended minimum conductor cross section and max. extension cord lengths:

Mains voltage	Conductor cross section				AWG	
	1.5 mm ²	2.0 mm ²	2.5 mm ²	3.5 mm ²	14	12
100 V	–	30 m	–	50 m	–	–
110–120 V	20 m	30 m	40 m	–	75 ft	125 ft
220–240 V	50 m	–	100 m	–	–	–

Do not use extension cords with 1.25 mm² or 16 AWG conductor cross sections.

Use of extension cords outdoors

When working outdoors use only extension cords that are correspondingly marked and approved for outdoor use.

6.3 Use of a generator or transformer

This tool may be powered by a generator or transformer which fulfils the following conditions:

- AC voltage, output power at least 2600 W.
 - The operating voltage must be within +5 % and –15 % of the rated voltage at all times.
 - Frequency range 50–60 Hz, never above 65 Hz.
 - Automatic voltage regulation with starting boost.
- Never operate other tools or appliances from the generator or transformer at the same time. Switching other tools or appliances on and off may cause undervoltage and/or overvoltage peaks, resulting in damage to the electric tool.

7. Operation



CAUTION: In the event of the drill bit sticking, the tool will pivot about its own axis.

Always use the tool with the side handle fitted and hold it securely with both hands applying an opposing torque so that the clutch releases in the event of the drill bit sticking.

Use a vice or clamp to secure loose workpieces.

	-CAUTION-
	<ul style="list-style-type: none"> • The insert tool may become hot during use. • There is a risk of burning the hands. • Wear protective gloves when changing insert tools.

7.1 Preparing the tool for use

7.1.1 Adjusting the depth gauge 3

1. Release the side handle clamping mechanism by turning the handle in a counter-clockwise direction.
2. Pivot the side handle into the desired position.
3. Adjust the depth gauge to the desired drilling depth "X".
4. Tighten the side handle securely by turning the handle in a clockwise direction.

7.1.2 Fitting the insert tool (TE-C) 4

1. Unplug the supply cord from the mains socket.
2. Check that the connection end of the insert tool is clean and lightly greased. Clean it and grease it if necessary.
3. Check that the sealing lip of the dust shield is clean and in good condition. Clean the dust shield if necessary or replace it if the sealing lip is damaged.
4. Push the connection end of the insert tool into the chuck and, while applying slight pressure, rotate the insert tool until it engages in the guide grooves.
5. Push the insert tool further into the chuck until it is heard to engage.
6. Check that the insert tool has engaged correctly (pull by hand).

7.1.3 Removing the insert tool 5

1. Unplug the supply cord from the mains socket.
2. Open the chuck by pulling back the locking sleeve.
3. Pull the insert tool out of the chuck.

7.1.4 Removing the chuck (TE-C und TE-T) 6

-NOTE-

Remove the depth gauge from the side handle in order to avoid injury.

1. Unplug the supply cord from the mains socket.
2. Pull the retaining ring on the chuck toward the front and hold it in this position.
3. Pull the chuck away from the tool toward the front.




7.1.5 Fitting the chuck (TE-C und TE-T) 7


-NOTE-

Remove the depth gauge from the side handle in order to avoid injury.

1. Unplug the supply cord from the mains socket.
2. Grip the sleeve around the base of the chuck and pull it forward. Hold it in this position.
3. Push the chuck onto the guide tube on the tool and release the sleeve.
4. Turn the chuck until it is heard to engage.

7.2 Operating the tool 10

  	<p>-CAUTION-</p> <ul style="list-style-type: none"> ● Drilling may cause splintering of the material. ● Splinters may cause injury to parts of the body and eyes. ● Wear eye protection, protective gloves and breathing protection if no dust removal system is used.
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	<p>-CAUTION-</p> <ul style="list-style-type: none"> ● The tool and the drilling operation emit noise. ● Excessive noise may damage the hearing. ● Wear ear protection.
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7.2.1 Activating the tool (theft protection system) (TE 16-M) (accessory available as option) 9

(Optional – not available with all versions.)



Further detailed information about activation and use of this optional feature can be found in the separate operating instructions for the theft protection system.

1. Plug the supply cord into the power outlet. The yellow theft protection indicator lamp blinks. The power tool is now ready to receive the signal from the activation key.
2. Hold the activation key close to the lock symbol. The power tool is activated as soon as the theft protection indicator lamp no longer lights.

-NOTE-

In the event of interruption of the electric supply to the power tool, e.g. brief disconnection to move to a different workplace, the power tool remains operational for approx. 20 minutes. After a longer interruption, the power tool must be reactivated by way of the activation key.

7.2.2 Drilling without hammering, position (2) (TE 16-M) 8

1. Engage the function selector switch in the (2) position. Do not operate the function selector switch while the motor is running.
2. Adjust the side handle to the desired position and check that it is fitted and secured correctly.
3. Plug the supply cord into the mains socket.
4. Position the tip of the drill bit at the point where the hole is to be drilled.
5. Press the control switch slowly. Begin drilling at low speed, increasing speed only after the drill bit has become centered in the hole.
6. Press the control switch fully to continue drilling at full power.
7. Do not apply excessive pressure to the tool. This will not increase its hammering power. Lower contact pressure increases the life of the insert tool.

7.2.3 Drilling without hammering, position (1) (TE 16/TE 16-C/TE 16-M) 8

1. Engage the function selector switch in the (1) position. Do not operate the function selector switch while the motor is running.
2. Adjust the side handle to the desired position and check that it is fitted and secured correctly.
3. Plug the supply cord into the mains socket.
4. Position the tip of the drill bit at the point where the hole is to be drilled.
5. Press the control switch slowly. Begin drilling at low speed, increasing speed only after the drill bit has become centered in the hole.
6. Press the control switch fully to continue drilling at full power.
7. Do not apply excessive pressure to the tool. This will not increase its hammering power. Lower contact pressure increases the life of the insert tool.

7.2.4 Hammer drilling (TE 16/TE 16-C/TE 16-M) 8

1. Engage the function selector switch in the (hammer) position. Do not operate the function selector switch while the motor is running.
2. Adjust the side handle to the desired position and check that it is fitted and secured correctly.
3. Plug the supply cord into the mains socket.
4. Position the tip of the drill bit at the point where the hole is to be drilled.
5. Press the control switch slowly. Begin drilling at low speed, increasing speed only after the drill bit has become centered in the hole.
6. Press the control switch fully to continue drilling at full power.
7. Do not apply excessive pressure to the tool. This will not increase its hammering power. Lower contact pressure increases the life of the insert tool.
8. When drilling through-holes, avoid spalling by reducing drilling speed shortly before breaking through.

-NOTE-

When working at low temperatures: The hammering mechanism begins to operate only when the tool has reached a minimum operating temperature. Press the tip of the drill bit briefly against the work surface while the tool is running. Repeat this procedure if necessary.


The hammering mechanism will begin to operate when the tool reaches the minimum operating temperature.

7.2.5 Chiseling (TE 16-C/TE 16-M)

-NOTE-

The chisel can be locked in 12 different positions (in 30° increments). Flat and shaped chisels can thus always be brought into the optimum position for the job on hand.


Chisel position adjustment

1. Engage the function selector switch in the position (). Do not operate the function selector switch while the motor is running.
2. Adjust the side handle to the desired position and check that it is fitted and secured correctly. (When chiseling, the tool may also be held at the section of the housing behind the chuck.)
3. Adjust the chisel to the desired position.

-CAUTION-

Do not work with the tool when the function selector switch is in this position.

Locking the chisel

1. Engage the chisel selector switch in the () position. Do not operate the function selector switch while the motor is running.

Chiseling ()

1. Plug the supply cord into the mains socket.
2. Position the tip of the chisel at the desired position on the work surface.
3. Press the control switch fully.

7.2.6 Forwards/reverse rotation

-CAUTION-

Do not operate the forwards/reverse switch while the motor is running.

1. Turn the switch to the forwards ("R") or reverse ("L") position.

8. Care and maintenance

Unplug the supply cord from the mains socket.

8.1 Care of insert tools

Clean off dirt and dust deposits and protect your insert tools from corrosion by wiping them from time to time with an oil-soaked rag.

8.2 Care of the electric tool

-CAUTION-

Keep the power tool, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.

The outer casing of the power tool is made from impact-resistant plastic. Sections of the grip are made from a synthetic rubber material.

Never operate the power tool when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the power tool. Clean the outside of the power tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the power tool.

8.3 Maintenance

Check all external parts of the tool for damage at regular intervals and check that all controls operate faultlessly. Do not operate the tool if parts are damaged or when the controls do not function faultlessly. If necessary, your electric tool should be repaired at a Hilti repair center.

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

8.4 Checks after care and maintenance

After carrying out care and maintenance on the tool, check that all protective equipment has been refitted and that all parts function faultlessly.

9. Tools and accessories

	TE 16	TE 16-C	TE 16-M
Chuck	TE-C (SDS plus)	TE-C (SDS plus)	TE-C (SDS plus)
Chuck	TE-T (SDS top)	TE-T (SDS top)	TE-T (SDS top)
Hammer drill bits	$\frac{1}{4}$ –1" (5–25 mm) dia.		
Percussion core bits	$2\frac{3}{4}$ – $3\frac{1}{2}$ " (66–90 mm) dia. (TE-C) 2– $3\frac{1}{2}$ " (50–90 mm) dia. (TE-T)		
Formwork and installation drill bits	$\frac{3}{8}$ – $1\frac{3}{8}$ " (10–35 mm) dia. (TE-C)		
Lightweight percussion core bits for masonry			1– $2\frac{1}{2}$ " (25–68 mm) dia. (TE-C)
Multi-purpose hole saws			$2\frac{1}{2}$ – $4\frac{1}{8}$ " (35–105) mm dia. (hex. connection end)
Chisels	Pointed, flat and shaped chisels with TE-C or TE-T connection end		
Setting tools	Setting tools with TE-C or TE-T connection end		
Quick-release chucks	Quick-release chucks 282341 and 282342 for wood and metal drill bits with cylindrical or hex. connection end		
Wood drill bits	$\frac{1}{4}$ –1" (5–25 mm) dia.		
Metal drill bits	up to $\frac{1}{2}$ " (13 mm) dia.		
Stepped drill bits for metal			$\frac{1}{8}$ – $\frac{3}{8}$ " (3–8 mm) dia. (2nd gear) $\frac{3}{8}$ – $\frac{1}{2}$ " (8–13 mm) dia. (1st gear) (hex. connection end)
Mixing paddles for non-inflammable substances			$3\frac{1}{8}$ –6" (80–150 mm) dia. mixing paddles with cylindrical shank
Dust removal system	TE DRS-S		
TPS theft protection system with company card, company remote and TPS-K activation key			option

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10. Troubleshooting

Fault	Possible cause	Remedy
The tool doesn't start.	Fault in mains supply.	Plug in another electric appliance and check whether it works.
	Supply cord or plug defective.	Have the cord checked and, if necessary, replaced by an electrical specialist.
	Control switch defective.	Have it checked and, if necessary, replaced by an electrical specialist.
The power tool doesn't start and the indicator lamp blinks yellow.	The power tool has not been activated (tools with optional theft protection system)	Use the activation key to activate the power tool.
No hammering action.	The tool is too cold.	Allow the tool to warm up to the minimum operating temperature. (See "Operation".)
	The function selector switch is set to rotary drilling.	Set the function selector switch to hammer drilling.
The tool does not achieve full power.	Extension cord with inadequate cross section used.	Use an extension cord with adequate cross section. (See "Assembly".)
	Control switch not fully pressed.	Press the control switch as far as it will go.
Drill bit doesn't rotate.	Function selector switch not engaged.	After rotation has stopped , move the function selector switch until it engages.
The drill bit cannot be released from the chuck.	Chuck sleeve not pulled back fully.	Pull the chuck sleeve back as far as it will go and remove the insert tool.
	Side handle not correctly fitted or moved out of place.	Release the side handle and reposition it correctly so that the clamping band and side handle are engaged in the groove. (see 6.1)
The drill bit makes no progress.	The forwards/reverse switch is set to reverse rotation.	Set the switch to forwards rotation.

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11. Disposal

Most of the materials from which Hilti electric tools are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old electric tools for recycling. Please ask your Hilti customer service department or Hilti representative for further information.

Should you wish to return the electric tool yourself to a disposal facility for recycling, proceed as follows: Dismantle the electric tool as far as possible without the need for special tools. Use absorbent paper to wipe oily parts clean and to collect any grease that runs out (total quantity approx. 50 ml). This paper should also be disposed of correctly. **On no account should grease be allowed to enter the waste water system or to find its way into the ground.**

The individual parts should be separated as follows:

Part/assembly	Main material	Recycling
Toolbox	Plastic	Plastics recycling
Gear housing	Aluminium alloy	Scrap metal
Bearing plate	Aluminium alloy	Scrap metal
Grip, side handle	Plastic	Plastics recycling
Motor housing	Plastic	Plastics recycling
Grip cover	Plastic	Plastics recycling
Fan	Plastic	Plastics recycling
Motor (rotor and stator)	Steel and copper	Scrap metal
Supply cord	Copper, synthetic rubber	Scrap metal
Gearing parts	Steel	Scrap metal
Hammering mechanism parts	Steel	Scrap metal
Screws, small parts	Steel	Scrap metal

12. Manufacturer's warranty – tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

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